

132
H Stuttgarter Beiträge zur Naturkunde
Serie A (Biologie)

Herausgeber:

Staatliches Museum für Naturkunde, Rosenstein 1, D-70191 Stuttgart

Stuttgarter Beitr. Naturk. Ser. A Nr. 524 30 S. Stuttgart, 20. 6. 1995

SMITHSONIAN

OCT 27 1995

LIBRARIES

Types in the Fish Collection of the
Staatliches Museum für Naturkunde in Stuttgart.
Part 3. Types of Fishes described in 1850–1994

By Ronald Fricke, Stuttgart

Summary

The third part of a catalogue of types stored in the fish collection of the Staatliches Museum für Naturkunde in Stuttgart includes type specimens of species described in 1850–1994, other than species described by P. BLEEKER and C. B. KLUNZINGER. This part is dealing with types of AGASSIZ (1850), AGASSIZ in PUTNAM (1863), BANARESCU (1953), BATH (1990a, 1990b, 1992), BRAUER (1902, 1905, 1906), CHABANAUD (1931), FRICKE (1990, 1992a, 1993a, 1993b, 1994), FRICKE & BROWNELL (1993), FRICKE & KOCH (1990), FRICKE & LEE (1993), FRICKE & RANDALL (1992), FRICKE & ROBERTS (1993), GARMAN (1881), GÜNTHER (1859, 1860), KESSLER (1870, 1872, 1874), KRAUSS (1882), KRÖYER in LÜTKEN (1874), LORTET (1878), LÜTKEN (1875), McCULLOCH (1911), OGILBY (1898), PAPPENHEIM (1911, 1913), POPTA (1908, 1911), REINHARDT in LÜTKEN (1874, 1875), SPRINGER & WILLIAMS (1994), STEINDACHNER (1870, 1879a, 1879b, 1879c, 1880, 1910), VEESENAYER (1884), WEBER (1917), WHITLEY (1929, 1931), and WIRTZ & BATH (1982, 1989).

At present, the fish collection contains a total of 663 type specimens, i. e. 60 holotypes, 362 syntypes, 15 paralectotypes and 226 paratypes, belonging to 242 nominal species out of 100 families.

Key words: Pisces; Type catalogue; Staatliches Museum für Naturkunde in Stuttgart.

Zusammenfassung

Der dritte Teil eines Typenkatalogs der Fischsammlung des Staatlichen Museums für Naturkunde in Stuttgart behandelt Typen aus den Jahren 1850–1994, mit Ausnahme der von P. BLEEKER und C. B. KLUNZINGER beschriebenen Arten. Dieser Teil enthält Typen von AGASSIZ (1850), AGASSIZ in PUTNAM (1863), BANARESCU (1953), BATH (1990a, 1990b, 1992), BRAUER (1902, 1905, 1906), CHABANAUD (1931), FRICKE (1990, 1992a, 1993a, 1993b, 1994), FRICKE & BROWNELL (1993), FRICKE & KOCH (1990), FRICKE & LEE (1993), FRICKE & RANDALL (1992), FRICKE & ROBERTS (1993), GARMAN (1881), GÜNTHER 1859, 1860, KESSLER (1870, 1872, 1874), KRAUSS (1882), KRÖYER in LÜTKEN (1874), LORTET (1878), LÜTKEN (1875), McCULLOCH (1911), OGILBY (1898), PAPPENHEIM (1911, 1913), POPTA (1908, 1911), REINHARDT in LÜTKEN (1874, 1875), SPRINGER & WILLIAMS (1994), STEINDACHNER (1870, 1879a, 1879b, 1879c, 1880, 1910), VEESENAYER (1884), WEBER (1917), WHITLEY (1929, 1931) und WIRTZ & BATH (1982, 1989).

Die Fischsammlung des SMNS enthält heute die Typen von 242 nominellen Arten aus 100 Familien, insgesamt 663 Exemplare, darunter 60 Holotypen, 362 Syntypen, 15 Paralektotypen und 226 Paratypen.

Contents

| | |
|---|----|
| 1. Introduction | 2 |
| 2. Methods | 3 |
| 3. Abbreviations and depositories | 3 |
| 4. Type catalogue | 4 |
| Anostomidae 4, – Aplocheilidae 4, – Auchenipteridae 4, – Bagridae 5, – Blenniidae 5, – Callichthyidae 6, – Callionymidae 6, – Channidae 8, – Characidae 8, – Cichlidae 9, – Clupeidae 10, – Curimatidae 10, – Cyprinidae 10, – Cyprinodontidae 12, – Draconettidae 12, – Eleotrididae 12, – Engraulididae 13, – Etheostomatidae 13, – Gerreidae 13, – Gobiidae 14, – Gonostomatidae 14, – Kyphosidae 15, – Latridae 15, – Leiognathidae 16, – Leptobramidae 16, – Loricariidae 16, – Myctophidae 16, – Nototheniidae 16, – Pempherididae 17, – Percidae 17, – Percopsidae 17, – Petromyzontidae 17, – Pimelodidae 17, – Pomacentridae 18, – Pseudochromidae 18, – Rajidae 18, – Sciaenidae 18, – Soleidae 18, – Squalidae 19, – Trichomycteridae 19, – Tripterygiidae 19, – Zoarcidae 22. | 22 |
| 5. Acknowledgments | 22 |
| 6. References | 27 |
| 7. Index | 27 |

1. Introduction

The present paper is the third part of a type catalogue of the Staatliches Museum für Naturkunde in Stuttgart. The first part listed BLEEKER collections from Indonesia (FRICKE, 1991b), and gave an introduction to the history of the Stuttgart fish collection. The second part was dealing with types described by C. B. KLUNZINGER (FRICKE, 1992b). This third part comprises other type materials with original descriptions published in 1850–1994.

From 1869–1872 and 1875–1884, C. B. KLUNZINGER was performing scientific research at the Stuttgart museum, part of the period paid as a technician. The main KLUNZINGER collection is deposited in the Staatliches Museum für Naturkunde in Stuttgart (FRICKE, 1992b). However, KLUNZINGER donated some of his Red Sea materials to foreign museums. In exchange, he received types from MCZ (Cambridge, Massachusetts, U.S.A.) (AGASSIZ, 1850; AGASSIZ in PUTNAM, 1863; GARMAN, 1881), from MGHN (Lyon) (LORTET, 1878), from NMW (Wien) (STEINDACHNER, 1870, 1879a, 1879c, 1880, 1910), from ZISP (St. Petersburg) (KESSLER, 1870, 1872, 1874), from ZMUC (Copenhagen) (KROYER in LÜTKEN, 1874; REINHARDT in LÜTKEN, 1874; LÜTKEN, 1875; REINHARDT in LÜTKEN, 1875). Researchers visiting the museum described new species based on material in the collections (CHABANAUD, 1931; DÖDERLEIN, MS; POPTA, 1908, 1911; STEINDACHNER, 1879b). Several new species were subsequently based on KLUNZINGER's illustrations and descriptions (McCULLOCH, 1911; OGILBY, 1898; WEBER, 1917; WHITLEY, 1929, 1931).

The Staatliches Museum für Naturkunde in Stuttgart also received type materials from A. GÜNTHER (BMNH, London) (species described by GÜNTHER, 1859, 1860), in exchange for specimens of German freshwater fishes taken by GÜNTHER to London. Further material was distributed by ZMB (Berlin) to various German museums, including SMNS (species described by BRAUER, 1902, 1905, 1906; PAPPENHEIM, 1911, 1913).

The private collection of R. FRICKE was received in 1988; it contained types of callionymid fishes. In 1991 and 1992, the private collection of P. WIRTZ (Funchal, Madeira) was acquired, including types of species described by BATH (1990a, 1990b)

and WIRTZ & BATH (1982, 1989). Further type specimens were donated by H. BATH, Pirmasens (species described by BATH, 1992).

Several new species were described by scientific personnel of the museum and affiliated institutions, additional to KLUNZINGER's descriptions (see FRICKE, 1992b). The respective publications include KRAUSS (1882), VEESENAYER (1884), FRICKE (1990, 1992a, 1993a, 1993b, 1994), FRICKE & BROWNELL (1993), FRICKE & KOCH (1990), FRICKE & LEE (1993), FRICKE & RANDALL (1992), and FRICKE & ROBERTS (1993).

Together with the type materials described by FRICKE (1991b, 1992b), the fish type collection of the Staatliches Museum für Naturkunde in Stuttgart at present contains a total of 663 specimens, i. e. 60 holotypes, 362 syntypes, 15 paralectotypes and 226 paratypes, out of 100 families of fishes.

2. Methods

Methods follow those of FRICKE (1991b, 1992b). The old SMNS specimen labels were mostly handwritten by C. B. KLUNZINGER in 1869–1884, who used the systematics of GÜNTHER's catalogues of the fishes in the British Museum (GÜNTHER, 1859, 1860–1870, 1861).

In the type section, the original combination of names is given first, together with a reference to the original description, type locality, and specimen size(s). It is followed by an actual name for the species, usually with a reference. Then, type status, catalogue number, old catalogue number, number of specimens, size of specimens, locality, collector, and catalogue entry date or date of collection are added. Type specimens are measured. Further comments include lists of type specimens in other collections (as far as known). The families are arranged alphabetically; the family systematics follows NELSON (1984).

3. Abbreviations and depositories

Abbreviations

| | |
|--------|---|
| + | (after total length, e. g. "345+ mm TL"): in cases when the caudal fin of the specimen is broken, the total length given is smaller than the original total length; the plus sign indicates the wanting part; |
| ? | (in synonymies): status in question; |
| ID | Identification by . . .; |
| MS | Manuscript; |
| SL | Standard length, measured from the mid of the upper lip to mid of caudal fin base; |
| TL | Total length, measured from the mid of the upper lip to end of caudal fin; |
| uncat. | uncatalogized. |

Depositories

| | |
|------|---|
| AMS | The Australian Museum, Sydney; |
| BKNU | Kunsan National University, Department of Biology, Kunsan, Korea; |
| BMN | Bergen Museum, Bergen, Norway; |
| BMNH | Natural History Museum, London [formerly British Museum (Natural History)]; |
| BPBM | Bernice P. Bishop Museum, Honolulu; |
| CAS | California Academy of Sciences, San Francisco; |
| MCZ | Museum of Comparative Zoology, Harvard College, Cambridge, Massachusetts, USA; |
| MGHN | Musée Guimet d'Histoire Naturelle, Lyon; |
| MNHN | Muséum National d'Histoire Naturelle, Paris; |
| NMB | Staatliches Naturhistorisches Museum, Braunschweig; |
| NMNZ | Museum of New Zealand Te Papa Tongarewa, Wellington (formerly Dominion Museum; National Museum of New Zealand); |

| | |
|---------------|--|
| <i>NMW</i> | Naturhistorisches Museum, Wien; |
| <i>NSMT-P</i> | National Science Museum, Tokyo; |
| <i>NTM</i> | Northern Territory Museum of Arts and Sciences, Darwin; |
| <i>RMNH</i> | Nationaal Natuurhistorisch Museum, Leiden (formerly Rijksmuseum van Natuurlijke Historie); |
| <i>ROM</i> | Royal Ontario Museum, Toronto; |
| <i>RUSI</i> | Rhodes University, J. L. B. SMITH Institute of Ichthyology, Grahamstown, South Africa; |
| <i>SMF</i> | Forschungsinstitut Senckenberg, Frankfurt/Main; |
| <i>SMNS</i> | Staatliches Museum für Naturkunde in Stuttgart; |
| <i>SW</i> | Sammlung PETER WIRTZ, formerly Freiburg, now in SMNS, Stuttgart; |
| <i>USNM</i> | National Museum of Natural History, Smithsonian Institution, Washington D. C.; |
| <i>WAM</i> | Western Australian Museum, Perth; |
| <i>ZISP</i> | Zoological Institute, Academy of Sciences, St. Petersburg, Russia; |
| <i>ZMA</i> | Zoological Museum, University of Amsterdam; |
| <i>ZMB</i> | Zoologisches Museum der Humboldt-Universität, Berlin; |
| <i>ZMH</i> | Zoologisches Museum und Zoologisches Institut der Universität Hamburg; |
| <i>ZMMU</i> | Zoological Museum, Moscow State University; |
| <i>ZMUC</i> | Zoologisk Museum, København. |

4. Type catalogue

Anostomidae

Leporinus reinhardti Lütken, 1875: 129 (Hab. in flumine Rio das Velhas nec non in lacu Lagoa Santa).

Valid (GÉRY, 1977: 163).

Syntype: SMNS 2040, 1 specimen, 111.3 mm SL, 136.1 mm TL – Brazil, State of Minas Gerais, Rio das Velhas, near Lagoa Santa, 19°38'S 43°53'W – REINHARDT, J. – Inv. date: Jan. 1876.

Further type material: ZMUC 123, 126, 128, 131 (4 syntypes).

Leporinus taeniatus Reinhardt in Lütken, 1875: 129–130 (Hab. in flumine Rio das Velhas et affluentibus).

Valid (GÉRY, 1977: 167).

Syntype: SMNS 2041, 1 specimen, 138.7 mm SL, 170.8 mm TL – Brazil, State of Minas Gerais, Rio das Velhas, at Lagoa Santa, 19°38'S 43°53'W – REINHARDT, J. – Inv. date: Jan. 1876.

Further type material: ZMUC 132, 133, 139, 143, 150 (5 syntypes).

Aplocheilidae

Aplocheilus blockii (Arnold, 1911): BERKENKAMP & ETZEL, 1986: 58–60.

Valid (BERKENKAMP & ETZEL, 1986: 58).

Paraneotypes: SMNS 4912, 2 specimens, 23.8–31.0 mm SL, 30.7–38.3 mm TL – India, Cochin – GERSTNER – Inv. date: 1911.

Auchenipteridae

Auchenipterus lacustris Reinhardt in Lütken, 1874: 30–31 (Hab. in flumine Rio das Velhas et in lacu Lagoa Santa dicto).

Syntype: SMNS 2051, 1 specimen – Brazil, State of Minas Gerais, Rio das Velhas, at Lagoa Santa, 19°38'S 43°53'W – REINHARDT, J. – Inv. date: Jan. 1876 (not found; probably lost).

Further type material: ZMUC 91, 92, 93, 97 (4 syntypes).

Bagridae

Pseudobagrus wittenburgii Popta, 1911: 335–339, 1 fig. (Blagoweschensk a. Amur, 25. V. 1908).

= *Pseudobagrus fulvidraco* (Richardson, 1845) (BERG, 1964: 477).

Syntypes: SMNS 4390, 2 specimens, 101–123 mm SL, 129–146 mm TL – Russia, Amur, at Blagoweschensk (Blagovescensk), 50°17'N 127°32'E – v. WITTENBURG, P. – 25 May 1908.

Blenniidae

Istiblennius spilotus Springer & Williams, 1994: 155–158, figs 52–54 (Pakistan, tidepools at Boleji Point, Karachi; Western Indian Ocean from Gulf of Oman south to northern South Africa).

Paratype: SMNS 13136, 1 specimen – Kenya, Malindi, 3°13'N 40°07'E – WIRTZ, P. – July 1978.

Further type material: USNM 220913 (holotype), BMNH 1888.12.29.150–153 (4 paratypes), BMNH 1899.12.29.30–39 (10 paratypes), BPBM 21353 (4 paratypes), CAS 35597 (11 paratypes), RUSI 8648 (3 paratypes), USNM 199617 (2 paratypes), USNM 217331 (4 paratypes), USNM 296450 (3 paratypes), USNM 296451 (5 paratypes), USNM 296463 (3 paratypes), USNM 296465 (1 paratype), USNM 296470 (3 paratypes), USNM 296479 (4 paratypes), USNM 325131 (7 paratypes).

Lipophrys bauchotae Wirtz & Bath, 1982: 226–231, figs. 1–2 (Cameroon).

Paratype: SMNS 13123 (ex SW 321), 1 specimen, 27.9 mm SL, 33.0 mm TL – Cameroon, Bay of Victoria, Snake Island, 4°1'N 9°12'E – WIRTZ, P. – Coll. date: Dec. 1979.

Lipophrys caboverdensis Wirtz & Bath, 1989: 15–26, figs. 1–13 (Cape Verde Islands).

Paratypes: SMNS 13124 (ex SW 447), 4 specimens, 17.7 mm, 21.0 mm, 25.0 mm, 29.9 mm SL, 20.7 mm, 24.4 mm, 29.1 mm, 34.8 mm TL – Cape Verde Islands, Sal Island, Murdeira Bay, 16°45'N 22°55'W – WIRTZ, P. – Coll. date: Apr. 1986.

SMNS 13125 (ex SW 451), 6 specimens, 13.7 mm, 15.5 mm, 17.1 mm, 18.4 mm, 19.8 mm, 21.5 mm SL, 16.4 mm, 19.0 mm, 20.4 mm, 22.4 mm, 23.3 mm, 25.1 mm TL – Cape Verde Islands, Santiago Island, Praia, 14°55'N 23°31'W – WIRTZ, P. – Coll. date: Apr. 1986.

SMNS 13126 (ex SW 442), 5 specimens, 20.2 mm, 21.9 mm, 22.2 mm, 22.7 mm, 23.2 mm SL, 23.7 mm, 25.8 mm, 26.0 mm, 27.0 mm, 27.3 mm TL – Cape Verde Islands, Sal Island, 1 km N Palmeira, 16°46'20"N 22°59'W – WIRTZ, P. – Coll. date: Apr. 1986.

Parablennius diallo Bath, 1990a: 42–48, figs. 37–42 (Senegal).

Paratypes: SMNS 13120 (ex SW 394), 1 specimen, 44.8 mm SL, 51.2 mm TL – Senegal, Pointe Senti, Joal, 14°10'N 16°51'W – IFAN (Institut Français d'Afrique Noire) – Coll. date: 20–21 July 1955.

SMNS 13121 (ex SW 468), 1 specimen, 44.2 mm SL, 50.9 mm TL – same data as SMNS 13120.

Parablennius salensis Bath, 1990a: 29–35, figs. 17–23 (Cape Verde Islands).

Paratypes: SMNS 13116 (ex SW 445), 2 specimens, 40.1 mm and 48.8 mm SL, 47.6 mm and 58.3 mm TL – Cape Verde Islands, Sal Island, Murdeira Bay, 16°45'N 22°55'W – WIRTZ, P. – Coll. date: Apr. 1986.

SMNS 13117 (ex SW 443), 1 specimen, 36.0 mm SL, 42.4 mm TL – Cape Verde Islands, Sal Island, Palmeira, 16°46'N 22°59'W – WIRTZ, P. – Coll. date: Apr. 1986.

SMNS 13118 (ex SW 448), 1 specimen, 34.5 mm SL, 40.9 mm TL – Cape Verde Islands, Santiago Is., Tarrafal, 15°17'N 23°46'W – WIRTZ, P. – Coll. date: Apr. 1986.

Parablennius sierraensis Bath, 1990a: 35–40, figs. 26–31 (Sierra Leone).

Paratypes: SMNS 13119 (ex SW 386), 4 specimens, 22.1 mm, 23.1 mm, 25.5 mm, 29.5 mm SL,

26.6 mm, 26.6 mm, 30.2 mm, 35.6 mm TL – Sierra Leone, Cape Sierra, $8^{\circ}28'N$ $13^{\circ}26'W$ – WIRTZ, P. – Coll. date: Feb. 1983.

Praealticus labrovittatus Bath, 1992: 256–261, figs. 20–30, 46 a-f (Palau- und Marianen-Inseln).

Paratypes: SMNS 14315, 8 specimens, 25.5 mm, 32.0 mm, 32.1 mm, 33.3 mm, 35.4 mm, 39.0 mm, 39.1 mm, 47.5 mm SL, 30.7 mm, 38.4 mm, 38.9 mm, 40.9 mm, 42.6 mm, 47.1 mm, 47.2 mm, 56.9 mm TL – Northern Marianas Islands, Rugusa Beach, Pagan Island – LARSON, H. & POWELL, S. – 8 Apr. 1971.

Scartella caboverdiana Bath, 1990b: 397–401, figs. 1–3 (Cape Verde Islands).

Paratypes: SMNS 13122 (ex SW 439), 12 specimens, 24.7 mm, 24.9 mm, 25.2 mm, 25.4 mm, 25.7 mm, 27.0 mm, 27.2 mm, 27.4 mm, 28.0 mm, 28.1 mm, 28.1 mm, 29.5 mm SL, 30.2 mm, 30.4 mm, 30.8 mm, 31.2 mm, 31.9 mm, 32.5 mm, 33.0 mm, 33.6 mm, 33.7 mm, 34.1 mm, 34.4 mm, 35.9 mm TL – Cape Verde Islands, Sal Island, Palmeira, $16^{\circ}46'N$ $22^{\circ}59'W$ – WIRTZ, P. – Coll. date: Apr. 1986.

SMNS 13524 (ex SW 439), 3 specimens – Cape Verde Islands, Sal Island, 1 km N Palmeira, $46^{\circ}45'30''N$ $22^{\circ}59'W$ – WIRTZ, P. – Coll. date: Mar. 1986.

Callichthyidae

Corydoras ehrhardti Steindachner, 1910: 60–61.

Valid (NIJSSEN & ISBRÜCKER, 1980: 205).

Paralectotypes: SMNS 4524, 2 specimens, 44 and 47 mm SL, 58 and 60 mm TL – Brazil, Itapocu (Rio Itajai), “Gebirgsflüsse” – EHRHARDT, W. – 1909 (inv. date: 1912).

Further type material: NMW 61104 (lectotype), BMNH 1910.3.17.1:1 (1 paralectotype), NMW 46711 (6 paralectotypes), NMW 46713 (6 paralectotypes), NMW 46716 (31 paralectotypes), NMW 46718 (13 paralectotypes), ZMA 110470 (5 paralectotypes).

Remarks: Lectotype designation by NIJSSEN & ISBRÜCKER, 1980: 205.

Callionymidae

Callionymus colini Fricke, 1993a: 2–4, fig. 1 (Papua New Guinea, Port Moresby, Horseshoe Barrier Reef, $9^{\circ}30'S$ $147^{\circ}10'E$, 26 m).

Holotype: SMNS 12260, 1 male, 23.5 mm SL – Papua New Guinea, Port Moresby, Horseshoe (barrier) reef, $9^{\circ}30'S$ $147^{\circ}10'E$, 26 m depth – COLIN, P. – 27 Apr. 1987.

Paratype: SMNS 12261, 1 female, 25.2 mm SL (same data as holotype).

SMNS 12263, 2 females, 12.9–23.8 mm SL (same locality as holotype) – COLIN, P. – 26 Apr. 1987.

Further type material: BPBM 34754 (2 paratypes).

Callionymus curvispinis Fricke & Brownell, 1993: 2–4, fig. 1 (Japan, Izu Islands, Miyake-jima: Igaya Bay, 16–18 m).

Paratypes: SMNS 12078, 1 male, 40.3 mm SL – Japan, Izu Islands, Miyake-jima, Igaya Bay, $34^{\circ}05'N$ $139^{\circ}32'E$, coarse sand and rubble, 16 m depth – ZAISER, M. J. & MOYER, J. T. – 18 Aug. 1984.

SMNS 12079, 1 male (45.2 mm SL) and 1 female (29.2 mm SL) (same locality as SMNS 12078), coarse sand and algae, 17 m depth – MOYER J. T., YOSHIKAWA, T. & ASOH, K. – 19 Aug. 1984.

Further type material: NSMT-P 35106 (holotype), NSMT-P 35107 (1 paratype), NSMT-P 35108 (1 paratype), NSMT-P 35109 (1 paratype), NSMT-P 35110 (2 paratypes), NSMT-P 35111 (1 paratype).

Callionymus gardineri rivatoni Fricke, 1993b: 365–368, fig. 1 (New Caledonia; trawled at depths of 15–110 m).

Paratypes: SMNS 12271, 1 male, 35.0 mm SL – New Caledonia, Ile de Sable, ca. 425 km NW Nouméa, $19^{\circ}37'18"S$ $163^{\circ}52'24"E$, 37–38 m depth – R/V “Alis” – 26 Oct. 1989.

SMNS 12272, 1 female, 33.5 mm SL – New Caledonia, 30 km SW Ile de Pins, ca. 100 km SE Nouméa, 22°31'48"S 167°07'30"E, 67–71 m depth – R/V "Vauban" – 21 Jan. 1985.

Further type material: Holotype: MNHN 1993–120. – Paratypes: MNHN 1993–119 (1).

Callionymus leucopoecilus Fricke & Lee, 1993: 275–279, fig. 1 (Korea, Uen-dong, Kunsan-shi, Chollabuk-do, 35°51'N 126°40'E).

Holotype: SMNS 10100, male, 84.1 mm SL – South Korea, W coast, Kunsan-shi, Uen-dong, 35°51'N 126°40'E – LEE C.-L. – 10 Oct. 1989.

Further type material: BKNU 331 (1 paratype).

Callionymus persicus izuensis Fricke & Brownell, 1993: 4–7, fig. 2 (Japan, Izu Islands, Miyake-jima: Igaya Bay, 16–18 m).

Paratypes: SMNS 11569, 1 spec., 15.5 mm SL – Japan, Izu Islands, Miyake-jima, Igaya Bay, 34°05'N 139°32'E, 16 m depth – ZAISER, M. J. & MOYER, J. T. – 18 Sep. 1983.

SMNS 11570, 1 female, 42.8 mm SL (same locality as SMNS 11569), 17 m depth – ZAISER, M. J. & MOYER, J. T. – 17 Aug. 1984.

SMNS 11571, 1 male, 43.2 mm SL (same locality as SMNS 11569), 17 m depth – ZAISER, M. J. & MOYER, J. T. – 16 Aug. 1984.

Further type material: NSMT-P 35099 (holotype), NSMT-P 35100 (1 paratype), NSMT-P 35101 (1 paratype), NSMT-P 35102 (2 paratypes), NSMT-P 35103 (1 paratype), NSMT-P 35104 (1 paratype), NSMT-P 35105 (1 paratype).

Callionymus superbus Fricke, 1983: 442–448, fig. 131 (Indonesia).

Paratype: SMNS 8561, 1 male, 88.2 mm SL – Indonesia, Bali, Jimbaran Beach, 8°46'S 115°11'E, 6–10 m depth – GLOERFELT-TARP, T. – Coll. date: 8 Aug. 1982.

Further type material: RMNH 6219 (holotype), RMNH 28787 (4 paratypes), ZMB 12482 (1 paratype).

Remarks: The original catalogue number of SMNS 8561 was SF P509–1983–018 (Sammlung FRICKE).

Callionymus tethys Fricke, 1993b: 369–371, fig. 2 (New Caledonia and Loyalty Islands; depths of 10–53 m).

Paratypes: SMNS 12266, 1 female, 36.0 mm SL – New Caledonia, NE coast, off Cap Baye, 21°01'36"S 165°34'42"E, 32–33 m depth – R/V "Vauban" – 9 Jan. 1987.

SMNS 12267, 2 males, 44.2–60.2 mm SL – New Caledonia, submarine bank ca. 500 km WNW Nouméa, 20°38'12"S 162°44'12"E, 23–24 m depth – R/V "Vauban", 13 Jan. 1987.

SMNS 12268, 1 female, 43.2 mm SL – (same locality as SMNS 12267), 22°18'30"S 166°13'48"E, 10 m depth – R/V "Vauban" – 25 May 1984.

SMNS 12269, 4 males, 16.3–28.0 mm SL – New Caledonia, 30 km W Ile Pott, ca. 420 km NW Nouméa, 19°27'18"S 163°16'18"E, 48 m depth – R/V "Alis" – 31 Oct. 1989.

Further type material: Holotype: MNHN 1993–136. – Paratypes: MNHN 1993–000 (1), 1993–124 (1), 1993–125 (1), 1993–126 (1), 1993–127 (1), 1993–128 (1), 1993–129 (1), 1993–130 (1), 1993–131 (1), 1993–132 (1), 1993–133 (1), 1993–134 (1), 1993–135 (1), 1993–136 (1).

Synchiropus claudiae Fricke, 1990: 2–9, fig. 1 (Papua New Guinea and Solomon Islands).

Holotype: SMNS 9048, male, 16.8 mm SL – Papua New Guinea, Madang, barrier reef, 5°15'S 145°50'E, 5 m depth – COLIN, P. – Coll. date: 19 Oct. 1986.

Paratypes: SMNS 8466, 1 male, 17.4 mm SL – Papua New Guinea, Port Moresby, Baracao Reef, 9°30'S 147°10'E, 10 m depth – COLIN, P. – Coll. date: 22 Mar. 1987.

SMNS 8479, 1 female, 16.3 mm SL – (same locality as SMNS 8466), 8 m depth – COLIN, P. – Coll. date: 7 Mar. 1987.

SMNS 9049, 1 male, 16.0 mm SL, and 1 female, 13.0 mm SL – (same data as holotype).

Further type material: BPBM 16113 (1 paratype).

Synchiropus kuiteri Fricke, 1992c: 82–83, figs 1–2 (Flores, Indonesia; sand bottom, 4 m depth).

Holotype: SMNS 12825, male, 8.4 mm SL – Bay of Maumere, 10 km E Maumere, Flores Island, Nusa Tenggara, Indonesia, $8^{\circ}38'00''S$ $122^{\circ}18'38''E$, sand bottom, 4 m depth – KUITER, R. H. – 29 May 1991.

Synchiropus novacaledoniae Fricke, 1993b: 372–374, fig. 3 (New Caledonia; depths of 225–280 m, on the submarine ridge SE of the Ile des Pins).

Paratypes: SMNS 12539, 1 female, 33.1 mm SL – New Caledonia, submarine bank 210 km SE Nouméa, $22^{\circ}21'12''S$ $168^{\circ}04'54''E$, 225–270 m depth – R/V "Alis" – 14 Sept. 1989.

SMNS 12540, 2 females, 33.7–35.0 mm SL – New Caledonia, submarine bank 255 km SE Nouméa, $23^{\circ}41'12''S$ $168^{\circ}00'30''E$, 240–280 m depth – R/V "Alis" – 7 Sept. 1989.

Further type material: Holotype: MNHN 1993–140. – Paratypes: MNHN 1993–138 (1), 1993–139 (1).

Channidae

Ophiocephalus africanus Steindachner, 1879b: 15–16 (1 spec., 18 cm TL; Lagos, Mus. Stuttg.).

= *Parachanna africana* (Steindachner, 1879) (TEUGELS, BREINE & THYS VAN DEN AUDEN- AERDE in DAGET et alii, 1986: 288).

Holotype: SMNS 1491, 148.4 mm SL, 179.5 mm TL – Nigeria, Lagos, $6^{\circ}27'N$ $3^{\circ}24'E$ – MANN, A. – Inv. date: Mar. 1868.

Remarks: Two additional specimens out of SMNS 1491, now registered as SMNS 12824, cannot be considered as types, as STEINDACHNER only mentioned the 18 cm TL specimen as the type of the species.

Characidae

Brycon dentex Günther, 1860: 240 (Esmeraldas, Ecuador).

Valid (HOWES, 1982: 21).

Syntype: SMNS 762, 1 specimen, 158.0 mm SL, 181.9 mm TL – Ecuador, Esmeraldas, $0^{\circ}59'N$ $79^{\circ}42'W$ – FRASER, A. – Inv. date: May 1860.

Further type material: BMNH 1860.6.15: 156–159 (4 syntypes).

Brycon reinhardtii Lütken, 1875: 134–135 (Hab. in flumine Rio das Velhas).

Valid (HOWES, 1982: 42).

Syntype: SMNS 2049, 1 specimen, 129 mm SL, 159 mm TL – Brazil, State of Minas Gerais, Rio das Velhas, approx. $17^{\circ}13'S$ $44^{\circ}49'E$ – LÜTKEN, C. F. – Inv. date: Jan. 1876.

Further type material: BMNH 1876.1.10: 36 (1 syntype); – ZMUC 216 (1 syntype), ZMUC 222 (1 syntype), ZMUC 224–225 (2 syntypes).

Serrasalmo brandtii Reinhardt in Lütken, 1875: 137 (Hab. in lacu Lagoa Santa qui dicitur, nec non in rivulis vicinis).

= *Serrasalmus brandtii* Reinhardt in Lütken, 1875 (GÉRY, 1977: 286).

Syntypes: SMNS 2043, 2 specimens, 66.2 mm and 86.0 mm SL, 76.3 mm and 102.1 mm TL – Brazil, State of Minas Gerais, Rio das Velhas, at Lagoa Santa, $19^{\circ}38'S$ $43^{\circ}53'W$ – REINHARDT, J. – Inv. date: Jan. 1876.

Further type material: ZMUC 268, 269, 273, 276a, 278, 279, 280, 290, 295, 297 (10 syntypes).

Tetragonopterus caucanus Steindachner, 1880a: 189 (Cauca).

= *Astyanax caucanus* (Steindachner, 1880).

Syntypes: SMNS 2833, 2 spec., 62.9 and 63.1 mm SL, 76.7+ and 78.9 mm TL – Colombia, Rio Cauca, at Caceres, $7^{\circ}35'N$ $75^{\circ}20'W$ – STEINDACHNER F. – Inv. date: June 1880.

Further type material: NMW 57372 (2 syntypes), NMW 57373 (3 syntypes), NMW 57334 (2 syntypes), NMW 57375 (2 syntypes), NMW 57376 (2 syntypes); – ZMUC 993 (1 syntype).

Tetragonopterus gracilis Reinhardt in Lütken, 1875: 133 (Hab. in lacu Lagoa Santa dicto).

= *Hemigrammus gracilis* (Reinhardt in Lütken, 1875) (GÉRY, 1977: 459).

Syntypes: SMNS 2047, 4 specimens, 21.2 mm, 24.9 mm, 27.1 mm, 28.0 mm SL, 25.4 mm, 29.7 mm, 33.6 mm, 34.9 mm TL – Brazil, State of Minas Gerais, Rio das Velhas, at Lagoa Santa, 19°38'S 43°53'W – REINHARDT, J. – Inv. date: Jan. 1876.

Further type material: ZMUC 522–529, 539, 650, 651, 661, 662 (13 syntypes).

Tetragonopterus lacustris Lütken, 1875: 131–132 (Hab. in lacu Lagoa Santa dicto nec non in rivulis nonnullis vicinis).

= *Astyanax bimaculatus lacustris* (Lütken, 1875) (NIELSEN, 1974: 46).

Syntypes: SMNS 2045, 2 specimens, 74.0 mm and 100.0 mm SL, 93.2 mm and 122.4 mm TL – Brazil, State of Minas Gerais, Rio das Velhas, at Lagoa Santa, 19°38'S 43°53'W – REINHARDT, J. – Inv. date: Jan. 1876.

Further type material: ZMUC uncat. (25 syntypes).

Tetragonopterus nanus Reinhardt in Lütken, 1875: 133–134 (Hab. in lacu Lagoa Santa, nec non in rivulis nonnullis vicinis).

= *Hasemania nana* (Reinhardt in Lütken, 1875) (GÉRY, 1977: 518).

Syntypes: SMNS 2048, 5 specimens – Brazil, State of Minas Gerais, Rio das Velhas, at Lagoa Santa, 19°38'S 43°53'W – REINHARDT, J. – Inv. date: Jan. 1876 (not found; probably lost).

Further type material: ZMUC 664–678, 900–916 (32 syntypes).

Tetragonopterus rivularis Lütken, 1875: 132 (Hab. in flumine Rio das Velhas cum affluentibus).

= *Astyanax scabripinnis rivularis* (Lütken, 1875) (NIELSEN, 1974: 46).

Syntypes: SMNS 2046, 3 specimens, 35.4 mm, 38.9 mm, 42.3 mm SL, 44.1 mm, 47.0 mm, 52.4 mm TL – Brazil, State of Minas Gerais, Rio das Velhas, at Lagoa Santa, 19°38'S 43°53'W – REINHARDT, J. – Inv. date: Jan. 1876.

Further type material: ZMUC uncat. (49 syntypes).

Xiphorhamphus lacustris Reinhardt in Lütken, 1875: 136 (Hab. in lacu Lagoa Santa).

= *Acestrorhynchus lacustris* (Reinhardt in Lütken, 1875) (GÉRY, 1977: 327).

Syntype: SMNS 2042, 1 specimen, 122.1 mm SL, 142.3 mm TL – Brazil, State of Minas Gerais, Rio das Velhas, at Lagoa Santa, 19°38'S 43°53'W – REINHARDT, J. – Inv. date: Jan. 1876.

Further type material: ZMUC 185, 187, 188, 194, 196 (5 syntypes).

Cichlidae

Chromis magdalena Lortet, 1878: 146–147 (Lac de Houlèh et lac de Tibériade; Damascus).

= *Tristamella simonis* (Günther, 1864) (KRUPP & SCHNEIDER, 1989: 400).

Syntype: SMNS 3187, 1 spec. – Syria, Bahret el Hidjane, Damascus, 33°30'N 36°18'E – LORTET, L. – Inv. dat: 1884 (not found; probably lost).

Further type material: USNM 48023 (1 syntype).

Chromis tiberiadis Lortet, 1878: 135–137, pl. 6 (Lac Houlèh et lac de Tibériade).

= *Sarotherodon galilaeus* (Linnaeus, 1758) (KRUPP & SCHNEIDER, 1989: 389).

Syntype: SMNS 3188, 1 spec., 197 mm SL, 240 mm TL – Israel, Lake Tiberias (Sea of Galilee, Lake Kinneret), north shore – LORTET, L. – Inv. date: 1884.

Further type material: MGHN 3086 (lectotype of KRUPP & SCHNEIDER, 1989), MGHN 3084 (2 paralectotypes), MGHN 3085 (3 paralectotypes), MGHN 3086 (3 paralectotypes), BMN 1258 (1 paralectotype), SMF 1318 (2 paralectotypes), ZISP 6734 (1 paralectotype).

Petenia kraussii Steindachner, 1879c: 28–31, pl. 2, fig. 1 (Magdalenenstrom; 10–26 cm).

Valid (SCHULZ, 1949: 173–175).

Syntype: SMNS 2596, 1 spec., 149.0 mm SL, 192.4 mm TL – Colombia: Rio Magdalena – STEINDACHNER, F. – Inv. date: 1879.

Clupeidae

Clupea macrolepis Steindachner, 1879b: 13–14 ("Townsville, Cleveland Bay, Australien"; 1 specimen, slightly above 8 cm).

= *Escualosa thoracata* (Valenciennes in Cuvier & Valenciennes, 1847) (WHITEHEAD, 1985: 119; PAXTON et alii, 1989: 153).

Holotype: SMNS 2292, 65.1 mm SL, 77.4 mm TL – Australia, Queensland, Cleveland Bay, near Townsville, $19^{\circ}16' S$ $146^{\circ}48' E$ – v. MÜLLER, F. – Inv. date: Apr. 1877.

Clupea neopilchardus Steindachner, 1879b: 12–13 (Hobson's Bay, Victoria; 1 specimen).

= *Sardinops neopilchardus* (Steindachner, 1879) (WHITEHEAD, 1985: 59; PAXTON et alii, 1989: 157).

Holotype: SMNS 2250 – Australia, Victoria, Hobson's Bay, $37^{\circ}51' S$ $144^{\circ}56' E$ – v. MÜLLER, F. – Inv. date: Apr. 1877 (not found; probably lost).

Curimatidae

Curimata albula Lütken, 1875: 127–128 (in flumine Rio das Velhas, Lagoa Santa).

= *Curimatus gibberti gibberti* Quoy & Gaimard, 1824 (PINTO, 1974: 56).

Syntypes: SMNS 2038, 2 specimens (only heads and tails) – Brazil, State of Minas Gerais, Rio das Velhas, at Lagoa Santa, $19^{\circ}38' S$ $43^{\circ}53' W$ – REINHARDT, J. – Inv. date: Jan. 1876.

Further type material: ZMUC 51, 52, 56, 57, 59, 67, 68, 69 (8 syntypes).

Cyprinidae

Alburnus formosus Putnam, 1863: 9 (Mobile, Alabama).

= *Notropis hypselopterus* (Günther, 1868) (see LEE et alii, 1980: 277).

Syntypes: SMNS 1167, 3 specimens, 33.4, 34.3 and 39.4 mm SL, 36.8+, 39.7+ and 45.2+ mm TL – U.S.A., Alabama, Mobile, $30^{\circ}42' N$ $88^{\circ}05' W$ – AGASSIZ, A. – Inv. date: Aug. 1864.

Alburnus lineolatus Agassiz in Putnam, 1863: 9 (Osage River).

Syntypes: SMNS 1161, 2 specimens – U.S.A., Missouri, Osage River – AGASSIZ, A. – Inv. date: Aug. 1864 (note in old catalogue: "verschimmelt, unbrauchbar. VII 1958" (discarded in July 1958).

Alburnus rubellus Agassiz, 1850: 364–366, pl. 3, figs. 1–3 (Lake Superior; "very common at the Sault St. Mary; specimens were also obtained from the Pic").

= *Notropis rubellus* (Agassiz, 1850) (MCALLISTER, 1990: 63).

Syntypes: SMNS 1166, 2 specimens, 44.6 mm and 49.7 mm SL, 52.8 mm and 57.1 mm TL – USA, Lake Superior – AGASSIZ, A. – Inv. date: Aug. 1864.

Alburnus zonatus Agassiz in Putnam, 1863: 9 (Osage River).

= *Notropis zonatus* (Agassiz in Putnam, 1863) (from GILBERT in LEE et alii, 1980: 327).

Syntype: SMNS 1165, 1 specimen, 52.5 mm SL, 65.2 mm TL – U.S.A., Missouri, Osage River – AGASSIZ, A. – Aug. 1860.

Barbus fluviatilis alba Krauss, 1882: 346 (Lomersheim, Enz; 45 cm Länge).

= *Barbus barbus barbus* (Linnaeus, 1758) (ID FRICKE, R., 1993).

Holotype: SMNS 14332, 355 mm SL, 412 mm TL – Germany, Baden-Württemberg, Enz R., at Lomersheim – SCHMIDT P. – Aug. 1881.

Barbus fluviatilis aurata Veesenmayer, 1884: 325–326 (Donau bei Ehingen; 1 Ex., 46 cm).

= *Barbus barbus barbus* (Linnaeus, 1758) (ID FRICKE, R., 1993).

Holotype: SMNS 14331, 399 mm SL, 461 mm TL – Germany, Danube R., at Rottenacker, 5 km SSW Ehingen, $48^{\circ}14' N$ $9^{\circ}41' 30' E$ – HEILBRONNER, A. – Oct. 1883.

Chanodichthys stenii Popa, 1908: 243–246 (Kiautschou; 1 spec.).

= *Parabramis pekinensis* (Basilewski, 1855) (NICHOLS, 1943: 151).

Holotype: SMNS 4313, 207 mm SL, 244 mm TL – China, Prov. Shantung, Kaiserkanal (Imperial Canal), near Kiautschou (Chiaohsien), 36°19'N 120°00'E – STENZ, P. – Coll. date: Aug. 1904.

Chondrostoma nasus macrolepidotus Krauss in Veesenmayer, 1884: 325 (from description of KRAUSS, 1879: 348–349; Donau unter der Friedrichsau bei Ulm; Totallänge 35 cm).

= *Chondrostoma nasus nasus* (Linnaeus, 1758).

Holotype: SMNS uncat. – Germany, Baden-Württemberg, Danube R., Ulm – KÄSBOHRER, M. – 22 Jan. 1879 (not found in 1993; probably lost).

Cyprinella rubripinna Garman, 1881: 91 (Lago del Muerte, near Parras, Coahuila, Mexico).

Notropis garmani Jordan, 1887: 813 (substitute name for *Cyprinella rubripinna* which is preoccupied).

= *Notropis garmani* Jordan, 1887 (MEEK, 1904: 73).

Syntypes: SMNS 3034, 2 specimens, 44.0 and 55.3 mm SL, 54.6 and 68.8 mm TL – Mexico: Lago del Muerte, near Parras de la Fuente, Prov. Coahuila, 25°25'N 102°11'W – Museum of Comparative Zoology, Harvard College, Cambridge, Massachusetts – Inv. date: 1881.

Remarks: Also syntypes of *Notropis garmani* Jordan, 1887.

Gobio kessleri kessleri banaticus Banarescu, 1953: 300, 318, fig. 3 (Romania, Timis R., between Albina and Urseni).

= *Gobio kessleri banaticus* Banarescu, 1953 (from BANARESCU, 1961).

Paratypes: SMNS 15255, 5 specimens – Romania, Timis R., near Albina – BANARESCU, P. – 1943–1946.

Leuciscus squaliusculus Kessler, 1872: 61, tab. 10, fig. 24 (Khodzhent, Yany-kurgan).

Valid (BERG, 1964: 96).

Syntypes: SMNS 2389, 2 specimens – Tadzhikistan, Syr-darja R., at Khodzhent (Leninabad), 40°17'N 69°37'E – Museum Petersburg – Inv. date: Jan. 1878 (not found in 1994; probably lost).

Notropis garmani Jordan, 1887: 813 (substitute name for *Cyprinella rubripinna* which is preoccupied).

= *Notropis garmani* Jordan, 1887 (MEEK, 1904: 73).

Syntypes: SMNS 3034, 2 specimens, 44.0 and 55.3 mm SL, 54.6 and 68.8 mm TL – Mexico:

Lago del Muerte, near Parras de la Fuente, Prov. Coahuila, 25°25'N 102°11'W – Museum of Comparative Zoology, Harvard College, Cambridge, Massachusetts – Inv. date: 1881.

Phoxinellus libani Lortet, 1878: 164–165, pl. 11, fig. 4 (Liban).

Syntypes: SMNS 3214, several spec. – Lebanon, Yamuni Lake – LORTET, L. – Inv. date: 1884 (not found; probably lost).

Further type material: USNM 48012 (2 syntypes).

Xenocypris lampertii Popa, 1908: 246–250 (Kiautschou; 1 spec.).

= *Xenocypris davidi lampertii* Popa, 1908 (NICHOLS, 1943: 121).

Holotype: SMNS 4319, 102.5 mm SL, 120.2 mm TL – China, Prov. Shantung, Kaiserkanal (Imperial Canal), near Kiautschou (Chiaohsien), 36°19'N 120°00'E – STENZ, P. – Coll. date: Aug. 1904.

Cyprinodontidae

Cyprinodon latifasciatus Garman, 1881: 92 (Mexico, Parras, Coahuila).

Valid (MEEK, 1904: 126; BERKENKAMP, H. O., personal communication).

Syntype: SMNS 3035, 1 specimen, 32.5 mm SL, 39.7 mm TL – Mexico, Parras, Coahuila – AGASSIZ, L. – Inv. date: 1881.

Remarks: The type locality is probably erroneous; the specimens might have originated from near Durango (MEEK, 1904: 127).

Draconettidae

Centrodraco oregonus lineatus Fricke, 1992a: 180–182, fig. 10 (seamount 300 km SE of Sokotra Island, 10°18'07"N 56°07'31"E, 408–415 m depth).

Paratype: SMNS 12136, 1 male, 119.8 mm SL – Western Indian Ocean, seamount 300 km SE of Sokotra Is., 10°18'07"N 56°07'31"E, 408–415 m depth – R/V "Vitiaz" – 30 Oct. 1988.

Further type material: ZISP 49940 (holotype); ZMMU 18680 (1 paratype).

Centrodraco rubellus Fricke, Chave & Suzumoto in Fricke, 1992a: 185–187, fig. 11 (Hawaiian Islands, and Indonesia, off SE Lombok, 8°58'S 116°34'E, 150–280 m).

Paratype: SMNS 8525, 1 male, 98.2 mm SL – Indonesia, southeast Lombok, 8°58'S 116°34'E, 150–280 m depth – GLOERFELT-TARP, T. – 1982.

Further type material: BPBM 28915 (holotype).

Eleotrididae

Carassius klunzingeri Ogilby, 1898: 787 (Murray River; based on *Eleotris cyprinoides* of KLUNZINGER, 1880).

Eleotris cyprinoides (non Valenciennes, 1837): KLUNZINGER, 1880: 384–385, pl. 5, fig. 2 (Murray River, 5 cm).

= *Carassius klunzingeri* Ogilby, 1898 (McCULLOCH, 1929: 364).

Syntypes: SMNS 14972 (old catalogue number: 1695b) – Murray River, South Australia – v. MÜLLER, F. – Inv. date: Aug. 1869.

Remarks: Specimens were erroneously donated to AMS in 1976. Due to Australian type laws, it is not possible to return primary types. A partial return of paralectotypes is planned after lectotype designation (D. F. HOESE, personal communication).

Eleotris africana Steindachner, 1880: 153–154 (1 spec., 6 cm, Sierra Leone, Museum Stuttgart).

= *Bostrychus africanus* (Steindachner, 1880) (MILLER & WONGRAT in QUÉRO et alii 1990: 953).

Holotype: SMNS 336, 48.9 mm SL, 59.5 mm TL – Sierra Leone – SCHMIDT, P. – Inv. date: May 1853.

Eleotris heterura Steindachner, 1880: 154–155 (1 spec., 7 cm, locality unknown; Museum Stuttgart).

= *Eleotris* sp., probably *Eleotris daganensis* Steindachner, 1870 (P. MILLER, personal communication, 1992).

Holotype: SMNS 12823 (old cat. no. SMNS 224a), 57.1 mm SL, 68.6 mm TL – no locality – BARTH – Inv. date: Feb. 1852.

Eleotris kraussii Steindachner, 1880: 191 (plate caption).

= *Bostrychus africanus* (Steindachner, 1880) (P. MILLER, personal communication, 1992; see remarks section below).

Holotype: SMNS 1490, 1 spec., 105.4 mm SL, 128.0 mm TL – Nigeria: Lagos, 6°27'N 3°24'E – MANN, A. – Inv. date: Mar. 1868.

Remarks: STEINDACHNER (1880) apparently forgot to include a description of this species, but illustrated it on pl. 1, fig. 1–1a. The figure caption gives the name "*Eleotris kraussii* n. sp.", like the specimen label in the collection. The species name is available according to Art. 12 of the

International Code of Zoological Nomenclature (RIDE et alii, 1985), which says that a new scientific name published before 1931 must be accompanied by a description, a definition or an indication; Art. 12 (b, 7) defines the proposal of a new species-group name in association with an illustration of the taxon being named as an indication.

According to P. MILLER (personal communication, 1992), the holotype exactly agrees in its head lateral-line system and meristics with *Bostrychus africanus* (Steindachner, 1880), which was described under the name *Eleotris africana* in the same paper as *E. kraussii*. The names were introduced by STEINDACHNER (1880) in the following sequence:

- (1) *Eleotris africana* in the text, p. 153, with an adequate description;
- (2) *Eleotris africana* in a list of species, p. 190;
- (3) *Eleotris kraussii* in the legend for Plate I (p. 191);
- (4) *Eleotris africana* in the legend for Plate III (p. 191).

As the first reviser of this nomenclatural problem, I select the name *Eleotris africana* Steindachner, 1880 as the senior synonym of the two names, on the grounds of usage and page-priority. *Eleotris kraussii* is thus a junior synonym of *Eleotris africana*, now *Bostrychus africanus*.

Lembus maculatus Günther, 1859: 505–506 (Ecuador). GÜNTHER, 1860: 236.

Eleotris lembus Günther, 1861: 121–122 (Esmeraldas, Ecuador; replacement name for *Lembus maculatus* Günther, 1859).

= *Philypnus maculatus* (Günther, 1859) (FOWLER, 1945: 258).

Syntype: SMNS 761, 1 specimen, 130.8 mm SL, 164.6 mm TL – Ecuador, Esmeraldas, 0°59'N 79°42'W – FRASER, A. – Inv. date: May 1860.

Engraulididae

Engraulis australis Steindachner, 1879b: 14–15 (“Hobson’s Bay, Victoria, Australien”, 2 specimens, 53–60 mm).

= *Engraulis australis* (White, 1790) (WHITEHEAD et alii, 1988: 314; PAXTON et alii, 1989: 160).

Syntypes: SMNS 2254, 3 specimens, 53.6 mm, 57.1 mm and 58.1 mm SL, 57.9+ mm, 61.6+ mm and 63.3+ mm TL – Australia, Victoria, Hobson’s Bay, 37°51’S 144°56’E – v. MÜLLER, F. – Inv. date: Apr. 1877.

Remarks: Secondary homonym and junior synonym of *Engraulis australis* (White, 1790).

Etheostomatidae

Micropoecila punctulata Putnam, 1863: 4 (specimens from various points in Michigan, Wisconsin, Illinois, and Alabama).

= *Etheostoma microperca* Jordan & Gilbert in Gilbert, 1887 (from LEE et alii, 1980: 668).

Syntypes: SMNS 1232, 2 specimens, 24.9–27.8 mm SL, 29.9–33.5 mm TL – U.S.A., Wisconsin, Oconomowoc River, 43°07’N 88°37’W – AGASSIZ, A. – Inv. date: Aug. 1864.

Pleurolepis pellucidus Agassiz in Putnam, 1863: 5.

= *Ammocrypta pellucida* (Agassiz in Putnam, 1863) (from LEE et alii, 1980: 620).

Syntype: SMNS 1243, 1 specimen, 42.0 mm SL, 48.9 mm TL – U.S.A., Ohio, Black River – AGASSIZ, A. – Inv. date: Aug. 1864.

Gerreidae

Parequula bicornis Steindachner, 1879b: 8–10 (Hobson’s Bay, Australien, 1 specimen, SMNS: Murray-River, Australien, 1 specimen, NMW).

= *Parequula melbournensis* (Castelnau, 1872) (MCCULLOCH, 1929: 216; SCOTT, GLOVER & SOUTHCOTT, 1974: 222–223).

Syntype: SMNS 2236, 1 specimen, 125.0 mm SL, 149.7 mm TL – Australia, Victoria, Hobson’s Bay, 37°51’S 144°56’E – v. MÜLLER, F. – Inv. date: Apr. 1877.

Further type material: NMW 90675, 1 specimen, Murray River, Australia.

Remarks: According to a label written by STEINDACHNER, he first intended to name the new genus *Kraussia*, but changed the name in the original description to *Parequula*.

Gobiidae

Gobius buccichii Steindachner, 1870: 627–628, pl. 2, fig. 4 (Lesina, Dalmatien; "Exemplare von 1 2/5 – 3 1/2" Länge, aus der Meeresbucht bei der Stadt Lesina").

Valid (see MILLER in WHITEHEAD et alii, 1986: 1037–1038).

Syntype: SMNS 2701, 1 specimen, 42.5 mm SL, 48.0 mm TL – Lesina / Hvar City, Hvar Island, Adriatic Sea, Croatia, 43°10'N 16°27'E – BUCCHICH, G. – 1870.

Gobius kraussii Steindachner, 1880: 134–135 (1 spec., 5 cm SL, Surinam).

? = *Awaous flavus* Valenciennes in Cuvier & Valenciennes, 1837 (P. MILLER, personal communication, 1992).

Holotype: SMNS 1506 – Surinam, mouth of Maroni River – KAPPLER, A. – 1868 (not found; probably lost).

Tridentiger punctulatus Döderlein (MS)

= *Tridentiger trigonocephalus* (Gill, 1858)

Material: SMNS 3138, 2 specimens, 65.2–66.3 mm SL, 78.7–79.8 mm SL – Japan, Tokyo Bay, at Tokyo, 35°30'N 139°54'E – SCHNEIDER – Inv. date: Apr. 1883.

Remarks: *Tridentiger punctulatus* is apparently an unpublished museum name.

Gonostomatidae

Cyclothona livida Brauer, 1902: 279–280 (auf vielen Stationen im Atlantischen Ozean). BRAUER, 1908: pl. 6, fig. 5.

Valid (SCHAEFER, JOHNSON & BADCOCK in SMITH & HEEMSTRA, 1986: 248).

Syntype: SMNS 4484, 1 specimen, 25.0 mm SL, 29.0 mm TL – East Atlantic Ocean, Gulf of Guinea, LV 3000 m (Δ 1600 m depth) – BRAUER, A. (Deutsche Tiefsee-Expedition 1898/1899) – Inv. date: 1899.

SMNS 4494, 1 specimen, 19.4 mm SL – East Atlantic Ocean, Gulf of Guinea – BRAUER, A. (Deutsche Tiefsee-Expedition 1898/1899) – Inv. date: 1899.

Further type material: NMB I-10032 (1 syntype) (FRICKE, 1991a: 1022). – SMF 2088 (1 syntype), SMF 2089 (3 syntypes), SMF 11943 (4 syntypes). – ZMB 17478 (1 syntype), ZMB 17479 (2 syntypes), ZMB 17480 (2 syntypes), ZMB 17481 (2 syntypes), ZMB 17482 (4 syntypes, including the specimen measured in the original description), ZMB 22312 (12 syntypes). – ZMH 10835 (2 syntypes, St. 54), ZMH 10834 (2 syntypes, St. 66).

Cyclothona obscura Brauer, 1902: 280 (an verschiedenen Stellen im Atlantischen und Indischen Ozean), BRAUER, 1908: pl. 6, fig. 3.

Valid (SCHAEFER, JOHNSON & BADCOCK in SMITH & HEEMSTRA, 1986: 248).

Syntype: SMNS 4491, 1 specimen, 16.1 mm SL, 19.2 mm TL – Indian Ocean, between Sri Lanka and Somalia, 9°06'06"N, 53°41'12"E, LV 2000 m (Δ 1000 m depth) – BRAUER, A. (Deutsche Tiefsee-Expedition 1898/1899, St. 268) – Coll. date: 1 Apr. 1899; inv. date: 1899.

Further type material: NMB I-10035 (1 syntype) (FRICKE, 1991a: 1023). – SMF 2113 (1 syntype). – ZMB 17509 (1 syntype), ZMB 17510 (1 syntype), ZMB 17512 (1 syntype; the specimen measured in the original description), ZMB 19321 (3 syntypes), ZMB 22324 (2 syntypes). – ZMH 10844 (1 syntype, St. 268).

Cyclothona pallida Brauer, 1902: 281 (an vielen Stellen im Atlantischen und Indischen Ozean). BRAUER, 1908: pl. 6, fig. 2 (as *Cyclothona microdon pallida*).

Valid (SCHAEFER, JOHNSON & BADCOCK in SMITH & HEEMSTRA, 1986: 249).

Syntypes: SMNS 4474, 1 specimen, 22.5 mm SL – East Atlantic Ocean, Gulf of Guinea – BRAUER, A. (Deutsche Tiefsee-Expedition 1898/1899) – Inv. date: 1899.

SMNS 4480, 1 specimen, 33.6 mm SL – Indian Ocean, between Seychelles and Chagos Archipelago, LV 2000 m (Δ 1000 m depth) – BRAUER, A. (Deutsche Tiefsee-Expedition 1898/1899) – Inv. date: 1899.

SMNS 4482, 1 specimen, 17.2+ mm SL – East Atlantic Ocean, Namibia, 11°28'S 9°46'E, 950–700 m, surface temp. 20.9°C – BRAUER, A. (Deutsche Tiefsee-Expedition 1898/1899, St. 74) – Coll. date: 8 Sep. 1898, 06:00 h, inv. date: 1899.

SMNS 4485, 2 specimens, 11.3–28.9 mm SL – Indian Ocean, between Chagos Archipelago and Sri Lanka, $4^{\circ}5'48''S$ $73^{\circ}24'48''E$, LV 2000 m (Δ 1000 m depth), surface temperature $27^{\circ}C$, bottom temperature $1.8^{\circ}C$ – BRAUER, A. (Deutsche Tiefsee-Expedition 1898/1899, St. 221) – Coll. date: 22 Feb. 1899; inv. date: 1899.

Further type material: NMB I-10020 (1 syntype), NMB I-10024 (1 syntype), NMB I-10028 (1 syntype), NMB I-10031 (2 syntypes) (FRICKE, 1991a: 1023). – SMF 2092 (1 syntype), SMF 2093 (2 syntypes), SMF 2094 (2 syntypes), SMF 2095 (2 syntypes), SMF 2096 (1 syntype), SMF 2097 (9 syntypes). – ZMB 17490 (3 syntypes), ZMB 17491 (1 syntype), ZMB 17492 (3 syntypes), ZMB 17494 (1 syntype), ZMB 17495 (7 syntypes), ZMB 17496 (1 syntype; the specimen measured in the original description), ZMB 17498 (1 syntype). – ZMH 8158 (2 syntypes, St. 46), ZMH 8159 (1 syntype, St. 190), ZMH 8160 (3 syntypes, St. 218), ZMH 8161 (20 syntypes, St. 226), ZMH 8162 (2 syntypes, St. 230), ZMH 8163 (1 syntype, St. 232).

Cyclothona signata alba Brauer, 1906: 80, fig. 3 (Atlantischer und Indischer Ozean).

= *Cyclothona alba* Brauer, 1906 (SCHAEFER, JOHNSON & BADCOCK in SMITH & HEMSTRA, 1986: 249).

Syntypes: **SMNS 4486**, 1 specimen, 16.6 mm SL, 19.1 mm TL – Indian Ocean, between Chagos Archipelago and Zanzibar, LV 2000 m (Δ 1000 m depth) – BRAUER, A. (Deutsche Tiefsee-Expedition 1898/1899) – Inv. date: 1899.

SMNS 4490, 2 specimens, 11.4–14.1 mm SL – Indian Ocean, between Sri Lanka and Chagos Archipelago, $2^{\circ}29'54''N$ $76^{\circ}47'00''E$, LV 2500 m (Δ 1500 m depth), surface temperature $27.2^{\circ}C$, bottom temperature $1.8^{\circ}C$ – BRAUER, A. (Deutsche Tiefsee-Expedition 1898/1899, St. 218) – Coll. date: 18 Feb. 1899, 15:00 h; inv. date: 1899.

SMNS 4492, 1 specimen, 23.9 mm SL, 27.1 mm TL – East Atlantic Ocean, between Canary Islands and Cape Town. – BRAUER, A. (Deutsche Tiefsee-Expedition 1898/1899) – Inv. date: 1899.

Further type material: NMB I-10021 (2 syntypes), NMB I-10023 (1 syntype), NMB I-10027 (1 syntype), (FRICKE, 1991a: 1023). – SMF 2112 (2 syntypes), SMF 2108 (1 syntype), SMF 2109 (12 syntypes), SMF 2110 (10 syntypes), SMF 2111 (7 syntypes), SMF 11941 (2 syntypes). – ZMB 17468 (5 syntypes), ZMB 17469 (3 syntypes), ZMB 17470 (2 syntypes), ZMB 17471 (2 syntypes), ZMB 17472 (5 syntypes), ZMB 17473 (4 syntypes), ZMB 17474 (2 syntypes), ZMB 17475 (2 syntypes), ZMB 17476 (5 syntypes), ZMB 17477 (3 syntypes), ZMB 22329 (8 syntypes), ZMB 22330 (12 syntypes), ZMB 22331 (2 syntypes), ZMB 22332 (3 syntypes), ZMB 22333 (3 syntypes), ZMB 22334 (4 syntypes). – ZMH 8164 (8 syntypes, St. 64), ZMH 8165 (2 syntypes, St. 88), ZMH 8166 (7 syntypes, St. 182), ZMH 8167 (5 syntypes, St. 215), ZMH 8168 (3 syntypes, St. 231), ZMH 8169 (4 syntypes, St. 271).

Kyphosidae

Segutilum klunzingeri Whitley, 1931: 320 (KLUNZINGER, 1880).

Pimelepterus indicus (non Valenciennes in Cuvier & Valenciennes, 1831): KLUNZINGER, 1880: 357–358, pl. 7 (King George Sound, 30 cm).

= *Segutilum klunzingeri* Whitley, 1931 (T. NAKABO, personal communication).

Holotype: **SMNS 2673**, 231.3 mm SL, 293.5 mm TL – King George Sound, Western Australia, $35^{\circ}03'S$ $117^{\circ}57'E$ – v. MÜLLER, F. – Inv. date: June 1879.

Remarks: WHITLEY (1931: 320) states: "KLUNZINGER's species is not *P. indicus* Cuvier & Valenciennes . . . as has been noted by McCULLOCH (Rec. Austr. Mus., XIII, 1920, 56) who has regarded KLUNZINGER's record as referable to *Kyphosus sydneyanus*, but it is unlikely that this restricted New South Wales species records in Western Australia. The type of this new species is the specimen figured on KLUNZINGER's plate by KONOPICKY, and the type-locality is King George's Sound."

Latridae

Micropus mülleri Steindachner, 1879b: 7–8 (Hobsonbay, Victoria; 1 specimen, 19 cm).

= *Orqueta mülleri* (Steindachner, 1879) (McCULLOCH, 1929: 192; SMITH-VANIZ in ESCHMEYER, 1990: 247).

Holotype: SMNS 2238, 156.9 mm SL, 189.8 mm TL – Hobson's Bay, Victoria, Australia, $37^{\circ}51'S$ $144^{\circ}56'E$ – v. MÜLLER, F. – Inv. date: Apr. 1877.

Remarks: The genus *Micropus* Kner, 1868 was preoccupied four times and was replaced by *Orqueta* Jordan, 1919; it belongs to the family Latridae (Smith-Vaniz in Eschmeyer, 1990: 247).

Leiognathidae

Equula novae-hollandiae Steindachner, 1879b: 11–12 (“Townsville, Cleveland Bay, Australia; 1 specimen, nearly 9 cm”).

= *Leiognathus novae-hollandiae* (Steindachner, 1879) (McCULLOCH, 1929: 212).

Holotype: SMNS 2285 – Cleveland Bay, Townsville, Queensland, Australia, $19^{\circ}16'S$ $146^{\circ}48'E$ – v. MÜLLER, F. – Inv. date: Apr. 1877 (lost).

Remarks: Catalog entry “VII 1958/p.: da verschimmelt, unbrauchbar” (discarded in July 1958).

Leptobramidae

Leptobrama mülleri Steindachner, 1879a: 388.

Valid (McCULLOCH, 1929: 235; WEBER & BEAUFORT, 1936: 220).

Syntypes: SMNS 2293, 2 specimens, 122.6 mm and 154.5 mm SL, 192.2 mm and 220.0 mm TL – Australia, Queensland, Cleveland Bay, near Townsville, $19^{\circ}16'S$ $146^{\circ}48'E$ – v. MÜLLER, F. – Inv. date: Apr. 1877.

SMNS 2415, 2 specimens, 134.2 mm and 149.6 mm SL, 162.8 mm and 179.0 mm TL – Australia, Queensland, Endeavour Strait, $10^{\circ}50'S$ $142^{\circ}15'E$ – v. MÜLLER, F. – Inv. date: Aug. 1878.

Loricariidae

Plecostomus lima Reinhardt in Lütken, 1874: 29–30 (Hab. in rivulis flumini Rio das Velhas affluentibus).

= *Hypostomus commersonii* Valenciennes in Cuvier & Valenciennes, 1840 (MALABARBA, 1989: 153).

Syntype: SMNS 2050, 1 specimen, 92.3 mm SL, 112.3 mm TL – Brazil, State of Minas Gerais, Rio das Velhas, at Lagoa Santa, $19^{\circ}38'S$ $43^{\circ}53'W$ – REINHARDT, J. – Inv. date: Jan. 1876.

Further type material: ZMUC 51, 56, 57, 58, 59, 611 (6 syntypes).

Myctophidae

Myctophum valdiviae Brauer, 1905: 398, fig. 6 (auf zahlreichen Stationen im Atlantischen und Indischen Ozean; 66 Ex.).

= *Notolycnus valdiviae* (Brauer, 1905) (HULLEY in SMITH & HEEMSTRA, 1986: 315).

Syntype: SMNS 4477, 1 specimen, 19.0 mm SL, 21.7 mm TL – Indian Ocean, between Seychelles and Zanzibar, $4^{\circ}34.8'S$ $53^{\circ}42.8'E$, LV 2000 m (Δ 1000 m depth), bottom temp. $2.1^{\circ}C$ – BRAUER, A. (Deutsche Tiefsee-Expedition 1898/1899, St. 235) – Coll. date: 9 Mar. 1899, 08:00 h, inv. date: 1899.

Further type material: NMB I-10017 (1 syntype) (FRICKE, 1991a: 1023). – SMF 2074 (1 syntype), SMF 2075 (4 syntypes), SMF 11942 (1 syntype), SMF 17729 (7 syntypes). – ZMB 17586 (1 syntype), ZMB 17587 (2 syntypes), ZMB 17588 (4 syntypes), ZMB 17589 (4 syntypes).

Nototheniidae

Trematomus brachysoma Pappenheim, 1913: 172–173 (“Von dieser Art liegen 39 Individuen vor”).

= *Pagothenia brachysoma* (Pappenheim, 1913) (DEWITT, HEEMSTRA & GON in GON & HEEMSTRA, 1990: 309).

Syntype: SMNS 4604, 1 specimen, 133.5 mm SL, 158.5 mm TL – GAUSS-Station, Antarctica, $66^{\circ}15'S\ 88^{\circ}55'E$, surface – Deutsche Südpolar-Expedition 1901–1903 – Inv. Date: 1912. Further type material: ZISP 41512 (1 paralectotype, ex ZMB 18903), ZISP uncat. (1 paralectotype; stained). – ZMB 18904 (1 lectotype of ANDRIASHEV, 1976), ZMB 18905 (2 paralectotypes), ZMB 18906 (1 syntype, lacking), ZMB 18907 (2 paralectotypes), ZMB 18908 (1 paralectotype), ZMB 18909 (1 paralectotype), ZMB 31604 (5 paralectotypes), ZMB 31728 (2 syntypes). – ZMH 8155 (2 syntypes). – ZMUC uncat. (1 paralectotype, ex ZMB 18904), ZMUC uncat. (1 paralectotype, ex ZMB 18907). – The following syntypes were misidentified specimens of *Pagothenia borchgrevinki* Boulenger, 1902 (ANDRIASHEV, A. P., personal communication, 1972): ZMB 18903 (6 syntypes), ZMB 18908 (1 syntype), ZMB 18910 (3 syntypes), ZMB 18911 (3 syntypes).

Pempherididae

Pempheris klunzingeri McCulloch, 1911: 47 (replacement name for *Pempheris mülleri* Klunzinger, 1880, preoccupied by *Pempheris mülleri* Poey, 1860). Valid (McCULLOCH, 1929: 234).

Holotype: SMNS 2559, 141.2 mm SL, 160.2 mm TL – King George Sound, Western Australia, $35^{\circ}03'S\ 117^{\circ}57'E$ – v. MÜLLER, F. – Inv. date: 4 Nov. 1878.

Remarks: This is also the holotype of *Pempheris mülleri* Klunzinger, 1880.

Percidae

Perca schrenki Kessler, 1874: 50, tab. 8, fig. 36 (Lakes Balkhash and Alakul).

Valid (BERG, 1966: 113).

Syntype: SMNS 2379, 1 specimen, 102 mm SL, 123 mm TL – Kazakhstan, Tentek R., at Lake Alakul (Alakol') – Museum Petersburg (ZISP) – Inv. Date: Jan. 1878.

Percopsidae

Percopsis guttatus Agassiz, 1850: 286–289, pl. 1, figs. 1–2 (Lake Superior; "in great abundance at the Sault St. Mary, at Michipicoten and at Fort William").

= *Percopsis omiscomayus* (Walbaum in Artedi, 1792) (JORDAN et alii, 1930: 215; McALLISTER, 1990: 114).

Syntypes: SMNS 1190, 3 specimens – USA, Lake Superior – AGASSIZ, A. – Inv. date: Aug. 1864 (not found; probably lost).

Petromyzontidae

Petromyzon wagneri Kessler, 1870: 207–214, pl. 3, figs. 4–5 (Volga, from mouth of the Tvertsa to Astrakhan, Oka, Kama).

= *Caspiomyzon wagneri* (Kessler, 1870) (HOLCIK in HOLCIK, 1986: 119).

Syntype: SMNS 2398, 1 specimen, 345 mm TL – Russia, Astrachan, $46^{\circ}21'N\ 48^{\circ}03'E$ – Museum Petersburg (ZISP) – Inv. date: Jan. 1878.

Pimelodidae

Pseudorhamdia fur Reinhardt in Lütken, 1874: 33–34 (Hab. in flumine Rio das Velhas).

Syntype: SMNS 2026, 1 specimen, 53.1 mm SL, 64.1 mm TL – Brazil, State of Minas Gerais, Rio das Velhas, at Lagoa Santa, $19^{\circ}38'S\ 43^{\circ}53'W$ – REINHARDT, J. – Inv. date: Jan. 1876.

Further type material: ZMUC 285, 286, 289, 291, 297, 300, 302, 303, 306 (9 syntypes).

Pseudorhamdia vittatus Kroyer in Lütken, 1874: 34 (Hab. in flumine Rio das Velhas, in rivulis affluentibus, lacusculisque vicinis).

Syntype: SMNS 2025, 1 specimen, 128.1 mm SL, 155.1 mm TL – Brazil, State of Minas Gerais, Semidouro Brook – REINHARDT, J. – Inv. date: Jan. 1876.

Further type material: ZMUC 271, 274, 275, 283–285 (6 syntypes).

Pomacentridae

Chromis klunzingeri Whitley, 1929: 244 (King George Sound, Western Australia; based on *Heliaastes hypsilepis* Klunzinger, 1880).

Heliaastes hypsilepis (non Günther, 1867): KLUNZINGER, 1880: 74 (King George Sound, 7–9 cm).

= *Chromis klunzingeri* Whitley, 1929 (ALLEN, 1991: 239).

Syntypes: SMNS 2556, 2 specimens, 72.7 mm and 78.7 mm SL, 91.4 mm and 101.8 mm TL, Australia, Western Australia, King George Sound, 35°03'S 117°57'E – v. MÜLLER, F. – Inv. date: 4 Nov. 1878.

SMNS 2630, 1 specimen, 75.6 mm SL, 97.6 mm TL, Australia, Western Australia, King George Sound, 35°03'S 117°57'E – v. MÜLLER, F. – Inv. date: Mar. 1879.

SMNS 2690, 7 specimens, 48.6 mm, 52.7 mm, 57.5 mm, 66.9 mm, 71.5 mm, 71.7 mm, 72.5 mm SL, 59.6 mm, 63.6 mm, 70.9+ mm, 80.5+ mm, 88.2+ mm, 91.7 mm, 92.7 mm TL, Australia, Western Australia, King George Sound, 35°03'S 117°57'E – v. MÜLLER, F. – Inv. date: June 1879.

Pseudochromidae

Pseudochromis novaehollandiae Steindachner, 1880: 160–161 (1 spec., Port Denis.).

= *Ogilbyina novaehollandiae* (Steindachner, 1880) (ID: GILL, A., 1990).

Holotype: SMNS 1859, 1 specimen, 63.2 mm SL, 77.4 mm TL – Australia, Queensland, Port Denison, Queensland, 20°15'S 148°25'E – v. MÜLLER, F. – Inv. date: Aug. 1872.

Rajidae

Raja dentata Klunzinger, 1872: 46–47 (Port Philip; 50 cm). KLUNZINGER, 1880: 429.

= *Raja lemprieri* (Richardson, 1845) (from PAXTON et alii, 1989: 56).

Holotype: SMNS 1658, 1 female, 500.5 mm TL – "Neuholland" (Port Philip, Victoria, Australia, 38°16'S 144°40'E) – v. MÜLLER, F. – Inv. date: May 1869.

Remarks: These specimens were first thought to be lost (FRICKE, 1992b: 16), but were misplaced and finally found in Feb. 1995.

The following specimen was designated as the lectotype of *Raja dentata* Klunzinger, 1872 by LAST in PAXTON et alii (1989: 56) and erroneously considered as a syntype by FRICKE (1992b: 16), but is not a syntype at all as it does not agree in its total length with the length stated by KLUNZINGER and was not available when KLUNZINGER made his description:

SMNS 1816, 1 female, 551.5 mm TL – Queen's Cliff, Port Philip, Victoria, Australia, 38°16'S 144°40'E – v. MÜLLER, F. – Inv. date: June 1871.

Therefore, LAST's lectotype designation is invalid.

Sciaenidae

Sciaena mülleri Steindachner, 1879b: 1–3 (Cleveland Bay, Townsville, Queensland; 1 specimen, 23 cm SL).

Sciaena (Corvina) mülleri: KLUNZINGER, 1880: 372.

= *Pseudosciaena soldado* (Lacepède, 1802) (WEBER & BEAUFORT, 1936: 520–521).

Holotype: SMNS 2267, 230.1 mm SL, 274 mm TL – Australia, Queensland, Cleveland Bay, near Townsville, 19°16'S 146°48'E – v. MÜLLER, F. – Inv. date: Apr. 1877.

Remarks: Further MÜLLER material: SMNS 12264, 2 specimens, Australia, Queensland, Cleveland Bay, near Townsville, MÜLLER, Apr. 1877, no types (1 specimen lost).

Soleidae

Achirus rautheri Chabanaud, 1931: 95–101, figs 1–10 (Nordaustralien, Port Darwin).

= *Pardachirus klunzingeri* Weber, 1917.

Material: SMNS 2521, 60.2 mm SL, 72.3 mm TL – Port Darwin (Darwin), Northern Territory, Australia, 12°28'S 130°50'E – v. MÜLLER, F. – Inv. date: Aug. 1878.

Remarks: Also syntype of *Pardachirus klunzingeri* Weber, 1917.

Pardachirus klunzingeri Weber, 1917: 230 [New Guinea; Darwin; based in part on *Solea poropterus* (non Bleeker, 1851) of KLUNZINGER, 1880].

Solea poropterus (non Bleeker, 1851): KLUNZINGER, 1880: 408–409 (Port Darwin; 7 cm).

Syntype: SMNS 2521, 1 specimen, 60.2 mm SL, 72.3 mm TL – Port Darwin (Darwin), Northern Territory, Australia, 12°28'S 130°50'E – v. MÜLLER, F. – Inv. date: Aug. 1878.

Remarks: Also holotype of *Achirus rautheri* Chabanaud, 1931.

Synaptura mülleri Steindachner, 1879b: 4–5 (Clevelandsbay bei Townsville in Queensland; 1 specimen, ca. 17.5 cm TL).

= *Dexillichthys muelleri* (Steindachner, 1879) (SAINSBURY, KAILOLA & LEYLAND, 1985: 292).

Holotype: SMNS 2278, 159.3 mm SL, 179.8 mm TL – Australia, Queensland, Cleveland Bay, near Townsville, 19°16'S 146°48'E – v. MÜLLER, F. – Inv. date: Apr. 1877.

Remarks: Further MÜLLER material: SMNS 2454, 1 specimen, Australia, Endeavour River, 1877.

Squalidae

Etmopterus compagnoi Fricke & Koch, 1990: 1–9 (Cape Town, South Africa).

Holotype: SMNS 8999, male, 327 mm TL – off Cape Town, 34°41'S 18°37'E – RAU, R. – Coll. date: 1965.

Paratypes: SMNS 9000, 3 females, 282–358 mm TL (same data as holotype).

Trichomycteridae

Trichomycterus brasiliensis Reinhardt in Lütken, 1874: 29 (Hab. in Rio das Velhas et affluentibus).

Probably valid (MALABARBA, 1989: 146).

Syntype: SMNS 2021, 1 specimen, 114.3 mm SL, 130.4 mm TL – Brazil, State of Minas Gerais, Rio das Velhas, at Lagoa Santa, 19°38'S 43°53'W – REINHARDT, J. – Inv. date: Jan. 1876.

Further type material: ZMUC 103, 108, 109, 114, 116, 119–121, 123–127 (13 syntypes).

Tripterygiidae

Apopterygion oculus Fricke & Roberts in FRICKE, 1994: 118–122, fig. 13 [New Zealand: North and South Island, Stewart Island, Chatham Rise (Mernoo Bank) and Auckland Islands; depths of 14–186 m].

Paratypes: SMNS uncat., 3 specimens – Paterson Inlet, Stewart Island, New Zealand – RICHARDSON, J. R. – 7–14 Feb. 1977.

Further type material: Holotype: MNNZ P.23969. – Paratypes: AMS uncat. (3). – BMNH uncat. (3). – MNNZ P.1221 (6), P.7091 (1), P.7309 (1), P.7310 (8), P.18870 (1), P.23970 (2), 25072 (1), P.25261 (1), P.25262 (1), P.25303 (7), P.25331 (4), P.25332 (5), P.25333 (13), P.25334 (3), P.25336 (3), P.25338 (1), P.25349 (1), P.25620 (2), P.25621 (3), P.25622 (1), P.30188 (1), uncat. (6). – USNM uncat. (3).

Enneapterygius bichrous Fricke, 1994 (5 Sept.): 195–202, fig. 30 (Western Australia north of 21°S, Northern Territory, Queensland north of 16°S, Coral Sea, New Caledonia, Loyalty Islands, Sulawesi/Indonesia, Papua New Guinea; at depths of 1–22 m).

= *Enneapterygius flavoccipitis* Shen & Wu, 1994 (31 July) (due to priority of publication date).

Paratype: SMNS 15356, 1 specimen – New Year Island, W side, Northern Territory, Australia, 10°55'S 133°01'E, 5 m depth – LARSON, H. – 13 Oct. 1982.

Further type material: Holotype: NTM S.10600–032. – Paratypes: AMS I.20756–011 (8), I.21318–052 (5), I.21963–001 (1), I.22732–007 (3), I.33724–026 (1). – NTM S.10011–018 (4), S.10012–026 (1), S.10432–026 (1), S.10454–026 (9), S.10585–003 (1), S.10587–015 (84), S.10591–024 (9), S.10598–021 (1), S.10600–043 (3), S.10605–038 (31), S.10605–039 (1), S.11253–014 (1), S.11371–066 (1), S.11450–007 (1). – ROM 65513 (1), 65515 (2), 65516 (6), 67974 (2). – WAM P.27663–025 (1), P.28025–039 (13), P.28031–029 (1), P.29048–008 (2), P.29054–012 (1), P.29624–077 (4).

Enneapterygius gracilis Fricke, 1994: 209–214, fig. 34 (Western Australia, Northern Territory, Queensland; depths of 0.2–15 m).

Paratypes: SMNS 14205, 1 male, 19.5 mm SL – Australia, Western Australia: Exmouth Gulf, at Exmouth, town beach, 3 km SE Exmouth town centre, $21^{\circ}55'S$ $144^{\circ}08'E$, 0.6–1.8 m depth – FRICKE, R. – 25 Aug. 1992.

SMNS 14552, 6 specimens, 21.7–27.7 mm SL – Australia, Western Australia: Beadon Point, at Onslow, Pilbara, $21^{\circ}39'S$ $115^{\circ}08'E$, intertidal pools – FRICKE, R. – 17 Sept. 1992.

SMNS 14612, 8 specimens, 22.2–26.2 mm SL – Australia, Western Australia: Beadon Point, at Onslow, Pilbara, $21^{\circ}39'S$ $115^{\circ}08'E$, intertidal pools – FRICKE, R. – 20 Sept. 1992.

Further type material: Holotype: NTM S.10431–027. – Paratypes: AMS I.17060–043 (6), IB.7075 (1). – NTM S.10005–027 (1), 10011–013 (3), 10415–027 (1), 10417–028 (2), 10431–034 (1), 10603–031 (1). – USNM 279864 (1). – WAM P.27274–041 (17), 28060–016 (5), 28417–025 (7).

Enneapterygius kermadecensis Fricke, 1994: 230–234, fig. 42 (Kermadec Islands; tidal pools).

Paratypes: SMNS uncat., 5 specimens – Meyer Island, Kermadec Islands, $29^{\circ}14.9'S$ $177^{\circ}52.2'W$, rock pool, 0–2 m depth – FRANCIS, M. P. – 2 June 1992.

Enneapterygius larsonae Fricke, 1994: 235–241, figs 44–45 (Western Australia, Northern Territory, Queensland, Papua New Guinea; 0.1–12 m depth).

Paratypes: SMNS 14215, 2 males, 24.5–25.8 mm SL – Australia, Western Australia: Exmouth Gulf, at Exmouth, town beach, 3 km SE Exmouth town centre, $21^{\circ}55'S$ $114^{\circ}08'E$, 0.6–1.8 m depth. – FRICKE, R. – 26 Aug. 1992.

SMNS 14575, 3 specimens, 29.9–30.8 mm SL – Australia, Western Australia: Beadon Point, at Onslow, Pilbara, $21^{\circ}39'S$ $115^{\circ}08'E$, intertidal pools – FRICKE, R. – 19 Sep. 1992.

SMNS 14611, 5 males, 28.2–29.2 mm SL – Australia, Western Australia: Beadon Point, at Onslow, Pilbara, $21^{\circ}39'S$ $115^{\circ}08'E$, intertidal pools – FRICKE, R. – 20 Sep. 1992.

SMNS 14657, 3 males, 34.5–34.8 mm SL – Australia, Western Australia: Eagle Bluff, 22 km SSE Denham, Shark Bay, $26^{\circ}08'S$ $113^{\circ}33'E$, 05.–2 m depth – FRICKE, R. – 26 Sep. 1992.

Further type material: Holotype: NTM S.10809–206. – Paratypes: NTM S.10004–042 (1), S.10461–003 (1), S.10809–035 (25), 10814–036 (7). – WAM P.25308–014 (1), P.25317–011 (2), P.26668–011 (5), P.28416–029 (2), P.29042–027 (2), P.29883–004 (1), P.29884–015 (1), P.29887–006 (1).

Enneapterygius niger Fricke, 1994: 259–263, fig. 51 (New Caledonia; 0.5–15 m depth).

Paratypes: SMNS 13207, 2 specimens, 25.4–26.3 mm SL – Baie de Saint-Vincent, Grande-Terre, New Caledonia, $21^{\circ}57'24"S$ $165^{\circ}59'54"E$, 2–8 m depth – KULBICKI, M. & R/V "Alis" – 30 Mar. 1989.

SMNS 13208, 2 specimens, 25.7–27.0 mm SL – Baie de Saint-Vincent, Grande-Terre, New Caledonia, $21^{\circ}57'24"S$ $165^{\circ}59'54"E$, 2 m depth – KULBICKI, M. & R/V "Alis" – 22 Mar. 1990.

Further type material: Holotype: MNHN uncat. – Paratypes: AMS IA.2954 (9), IB.4779 (1). – MNHN uncat. (3). – NMNZ P.29472 (1), P.29517 (1), P.29558 (1), P.29587 (8), P.29606 (1), P.29608 (4). – ROM 65507 (10), 65508 (8), 65510 (3), 65514 (2), 65523 (1). – USNM 323779 (14).

Enneapterygius paucifasciatus Fricke, 1994: 264–266, fig. 52 (New Caledonia; 2–4 m depth).

Paratype: SMNS 13868, 1 female, 24.3 mm SL – Baie de Saint-Vincent, Grande-Terre, New Caledonia, $22^{\circ}01'06"S$ $165^{\circ}55'30"E$ – KULBICKI, M. & R/V "Alis" – 31 Mar. 1989.

Further type material: Holotype: MNHN uncat. – Paratype: BPBM 34312 (1).

Forsterygion flavonigrum Fricke & Roberts in Fricke, 1994: 314–319, fig. 63 (New Zealand including Chatham Rise to Chatham Island, Snares Islands, and Auckland Islands; at depths of 7–110 m).

Paratypes: SMNS uncat., 10 specimens – off Seymour Island, Doubtful Sound, Fiordland, New Zealand, $45^{\circ}18'S$ $167^{\circ}00'E$, 12 m depth – HARDY, G. S. – 28 Feb. 1985.

Further type material: Holotype: NMNZ P.16927. – Paratypes: AMS uncat. (10). – BMNH uncat. (10). – NMNZ P.15346 (20), P.15410 (43), P.15906 (1), P.15908 (1), P.16380 (1), P.17008 (3), P.17042 (7), P.18255 (1), P.18285 (2), P.18442 (4), P.20108 (3), P.21194 (7), P.21653 (1), P.21808 (1), P.21815 (8), P.24649 (4), P.25095 (3), P.25694 (2), P.26653 (20), P.26662 (5), P.27800 (18), P.28284 (8), P.30198 (31). – USNM uncat. (10).

Grahamina signata Fricke & Roberts, 1993: 16–19, fig. 9 (New Zealand, South Island: South-Westland, Otago; North Island: NE Northland, W Northland, west coast, Hawke Bay, Wellington area; Auckland Islands; extremely exposed rocky shores, 0.3–3 m depth).

Paratypes: SMNS 13916, 66 specimens, 21.3–73.0 mm SL – New Zealand, South Island, Tauranga Bay, 3 km SSW Cape Foulwind, 15 km WSW Westport, $41^{\circ}47'S$ $171^{\circ}27'E$, 0–1.5 m depth – FRICKE, R. – 21 Nov. 1992.

SMNS 13933, 21 specimens, 25.8–69.1 mm SL – New Zealand, South Island, 3 km SW Barrytown, 20 km NNE Greymouth, $42^{\circ}15'S$ $171^{\circ}16'E$, 0–3.5 m depth – FRICKE, R. – 22 Nov. 1992.

SMNS 14047, 1 specimen, 43.8 mm SL – New Zealand, South Island, Allan Beach, Otago Peninsula, 14 km E Dunedin, $45^{\circ}54'S$ $170^{\circ}42'E$, rock pools – FRICKE, R. – 4 Dec. 1992.

Further type material: AMS I. 34234–001 (5 paratypes). – BMNH 1993.9.24: 1–5 (5 paratypes). – NMNZ P.14109 (2 paratypes), NMNZ P.17083 (17 paratypes), NMNZ P.30570 (5 paratypes), NMNZ P.30571 (holotype). – USNM 326614 (5 paratypes).

Helcogramma larvata Fricke & Randall, 1992: 6–9, figs. 5–6 (North Male Atoll, Maldives).

Paratype: SMNS 11577, 1 male, 19.2 mm SL – Maldives Is., North Male Atoll, Male Is., $4^{\circ}11'N$ $74^{\circ}30'10"E$, ocean side, off sea wall, surge channel with boulders, 0–1.5 m depth – RANDALL, J. E., ANDERSON, R. C., ADAM, M. S. & MILTON, D. A. – 25 Mar. 1988.

Further type material: BPBM 34518 (holotype), BPBM 34519 (1 paratype), BPBM 34520 (1 paratype).

Helcogramma maldivensis Fricke & Randall, 1992: 9–11, figs. 7–8, pl. 1 (North and South Male Atolls, Maldives).

Holotype: SMNS 11468, male, 25.4 mm SL – Maldives Is., South Male Atoll, Kandooma Is., $3^{\circ}55'38"N$ $74^{\circ}29'33"E$, SW outer reef, isolated coral heads, underneath overhanging coral, 0.5–1.5 m depth – FRICKE, R. – 12 Nov. 1988.

Paratypes: SMNS 11469, 2 males and 2 females, 17.5–22.3 mm SL, (same data as holotype).

SMNS 11470, 2 males (17.6–21.6 mm SL) and 1 female (18.9 mm SL) (same locality as holotype) – FRICKE, R. – 13 Nov. 1988.

SMNS 11471, 1 male, 17.8 mm SL (same locality as holotype) – FRICKE, R. – 14 Nov. 1988.

SMNS 11472, 1 male, 22.2 mm SL (same locality as holotype) – FRICKE, R. – 17 Nov. 1988.

SMNS 11473, 1 male, 23.3 mm SL (same locality as holotype) – FRICKE, R. – 18 Nov. 1988.

Further type material: BMNH 1991.4.15: 1 (1 paratype). – BPBM 18889 (2 paratypes), BPBM 32904 (3 paratypes), BPBM 32976 (1 paratype), BPBM 34521 (1 paratype). – CAS 75979 (1 paratype). – MNHN 1991–0700 (1 paratype). – NSMT-P 34632 (1 paratype). – RUSI 36705 (1 paratype). – USNM 316488 (1 paratype). – ZMB 32033 (1 paratype).

Helcogramma novaecaledoniae Fricke, 1994: 429–430, fig. 93 (New Caledonia; depths of 3–38 m).

Paratypes: SMNS 13912, 2 males, 30.7–32.1 mm SL, and 1 female, 31.0 mm SL – Passe de Saint-Vincent, Grande-Terre, New Caledonia, $22^{\circ}02'06"S$ $165^{\circ}58'24"E$, 3 m depth – KULBICKI, M. L. & R/V "Alis" – 20 Mar. 1990.

SMNS 13913, 1 male, 36.0 m SL, same data as SMNS 13912.
Further type material: Holotype: MNHN uncat. – Paratypes: MNHN uncat. (3).

Zoarcidae

Lycodes brachycephalus Pappenheim, 1913: 179–180, pl. 10, fig. 3 („Es liegen von dieser Art 58 vollständige Exemplare vor (neben zahlreichen Köpfen). . .“)
= *Pachycara brachycephalum* (Pappenheim, 1913) (ANDERSON in GON & HEEMSTRA, 1990: 274).

Syntypes: SMNS 4605, 2 specimens, 103.1 mm and 158.4 mm SL, 105.7 and 161.5 mm TL – GAUSS-Station, Antarctica, 66°15'S 88°55'E, 385 m depth – Deutsche Südpolar-Expedition 1901–1903 – Inv. Date: 1912.

Further type material: ZMB 18927 (1 syntype), ZMB 18928 (5 syntypes), ZMB 18929 (1 syntype), ZMB 18931 (5 syntypes), ZMB 18933 (1 syntype), ZMB 18934 (2 syntypes), ZMB 18935 (6 syntypes), ZMB 18936 (2 syntypes), ZMB 18937 (3 syntypes), ZMB 18938 (1 syntype), ZMB 18939 (1 syntype), ZMB 18940 (2 syntypes), ZMB 21356 (1 syntype), ZMB 24093 (4 syntypes). – ZMH 8156 (2 syntypes).

Lycodichthys antarcticus Pappenheim, 1911: 383 („zahlreiche Exemplare, die größten von etwa 20 cm Länge“).

Valid (ANDERSON in GON & HEEMSTRA, 1990: 267).

Syntype: SMNS 4607, 1 specimen, 169.5 mm SL, 175.4 mm TL – GAUSS-Station, Antarctica, 66°15'S 88°55'E, 385 m depth – Deutsche Südpolar-Expedition 1901–1903 – Inv. Date: 1912.

Further type material: ZMB 18941 (6 syntypes), ZMB 18942 (2 syntypes), ZMB 18943 (3 syntypes), ZMB 18944 (2 syntypes), ZMB 18945 (1 syntype), ZMB 18946 (1 syntype). – ZMH 8157 (1 syntype).

5. Acknowledgments

The author would like to thank D. F. HOESE, M. McGROUTHER, J. PAXTON, S. READER, T. TRNSKI (AMS, Sydney), LEE C.-L. (BKNU, Kunsan), O. CRIMMEN, N. MERRETT, D. SIEBERT (BMNH, London), J. E. RANDALL (BPBM, Hololulu), W. N. ESCHMEYER, T. IWAMOTO (CAS, San Francisco), K. E. HARTEL (MCZ, Cambridge, Mass.), G. DUHAMEL (MNHN, Paris), A. STEWART (NMNZ, Wellington), B. HERZIG (NMW, Wien), H. K. LARSON (NTM, Darwin), M. J. P. VAN OIJEN (RMNH, Leiden), W. KLAUSEWITZ, C. KÖHLER, F. KRUPP, F. UIBLEIN, H. ZETZSCHE (SMF, Frankfurt/Main), V. G. SPRINGER, J. T. WILLIAMS (USNM, Washington D. C.), H.-J. PAEPKE (ZMB, Berlin), H. WILKENS (ZMH, Hamburg), J. NIELSEN (ZMUC, Copenhagen). A. P. ANDRIASHEV (ZISP, St. Petersburg). F. KRUPP (SMF), P. MILLER (Zoology Department, Bristol University), and T. NAKABO (Kyoto University, Faculty of Fisheries) gave additional information.

6. References

AGASSIZ, L. (1850): Lake Superior, its physical character, vegetation, and animals, compared with those of other and similar regions. VI. Fishes of Lake Superior compared with those of the other great Canadian lakes. – Pp. 246–377, pls. 1–5; Boston (Gould, Kendall & Lincoln).

ALLEN, G. R. (1991): Riffbarsche der Welt. – 271 pp.; Melle (Mergus).

ANDRIASHEV, A. P. (1976): On the first fishes from the Antarctic collected by Captain JAMES C. Ross's expedition and some problems of marine cryobiology. – Zool. J., 55: 866–878; Washington, D. C.

BANARESCU, P. (1953): Variatia geografica, filogenia si ecologia cyprinidului *Gobio kessleri*. – Studii Cerc. stiint. Cluj, 4 (1–2): 246–263; Bucuresti.

– (1961): Weitere systematische Studien über die Gattung *Gobio* (Pisces, Cyprinidae), insbesondere im Donaubecken. – Věst. čsl. zool. Spol., 25 (4): 318–346; Praha.

BATH, H. (1990a): Taxonomie und Verbreitung von *Parablennius* Ribeiro, 1915 an der W-Küste Afrikas und der Kapverdischen Inseln mit Revalidation von *P. verryckeni* (Poll, 1959) und Beschreibung drei neuer Arten (Pisces: Blenniidae). – Senckenbergiana biol., 70 (1-3): 15-69; Frankfurt/Main.

- (1990b): Über eine neue Art der Gattung *Scartella* von den Kapverdischen Inseln (Pisces: Blenniidae). – Mitt. Pollichia, 77: 395-407; Bad Dürkheim.
- (1992): Revision der Gattung *Praealticus* Schultz & Chapman 1960. – Senckenbergiana biol., 72 (4/6): 237-316; Frankfurt/Main.

BERG, L. S. (1964): Freshwater fishes of the U.S.S.R. and adjacent countries. – Vol. 2, 4th ed., 496 pp.; Jerusalem (English translation: Israel Program for Scientific Translations).

- (1966): Freshwater fishes of the U.S.S.R. and adjacent countries. – Vol. 3, 4th ed., 510 pp., 1 map; Jerusalem (English translation: Israel Program for Scientific Translations).

BERKENKAMP, H. O. & V. ETZEL (1986): Revision der asiatischen Gattung *Aplocheilus* McClelland, 1839 (Familie Aplocheilidae Bleeker, 1860). 2. Teil. Wiederbeschreibung von *Apl. blockii* sowie *Apl. parvus* und Kreuzungsergebnisse der Artengruppe *Apl. blockii*. – DKG-Journal (Deutsche Killifisch-Gesellschaft), 18 (5): 57-70; Wiesbaden.

BLEEKER, P. (1851): Over eenige nieuwe soorten van Pleuronectoiden van den Indischen Archipel. – Nat. Tijds. Nederlandsch-Indie, 1: 401-416; Batavia-Weltevreden.

BRAUER, A. (1902): Diagnosen von neuen Tiefseefischen, welche von der Valdivia-Expedition gesammelt sind. – Zool. Anz., 25: 277-298; Jena.

- (1905): Die Gattung *Myctophum*. – Zool. Anz., 28 (10): 377-404; Jena.
- (1906): Die Tiefseefische. I. Systematischer Teil. – In: CHUN, C.: Wissenschaftliche Ergebnisse der Deutschen Tiefsee-Expedition auf dem Dampfer "Valdivia". – 15 (1), 432 pp., 16 pls.; Jena (Fischer).
- (1908): Die Tiefseefische. II. Anatomischer Teil. Atlas. – In: CHUN, C.: Wissenschaftliche Ergebnisse der Deutschen Tiefsee-Expedition auf dem Dampfer "Valdivia". – 15 (2), 44 pls.; Jena (Fischer).

DAGET, J., J.-P. GOSSE & D. F. E. THYS VAN DEN AUDENAERDE (eds.) (1986): Check-list of the freshwater fishes of Africa, 2.-XIV + 520 pp.; Bruxelles, Tervuren & Paris (IRSN, MRAC et ORSTOM).

FOWLER, H. W. (1945): Los peces del Peru. Catálogo sistemático de los peces que habitan en aguas peruanas. – 298 pp.; Lima (Museo de Historia Natural "Javier Prado" y Universidad Nacional Mayor de San Marcos).

FRICKE, R. (1983): Revision of the Indo-Pacific genera and species of the dragonet family Callionymidae (Teleostei). – X + 774 pp.; Braunschweig (J. Cramer).

- (1990): A new and a rare species of dragonet (Teleostei: Callionymidae) from New Guinea and the Solomon Islands. – Stuttgarter Beitr. Naturk., (A) 446: 1-13; Stuttgart.
- (1991a): Catalogue of the fish collection of the Staatliches Naturhistorisches Museum in Braunschweig. – Braunschweig. naturk. Schr., 3 (4): 1021-1049; Braunschweig.
- (1991b): Types and historical materials in the fish collection of the Staatliches Museum für Naturkunde in Stuttgart. Part 1. The BLEEKER collection. – Stuttgarter Beitr. Naturk., (A) 471: 1-85; Stuttgart.
- (1992a): Revision of the family Draconettidae (Teleostei), with descriptions of two new species and a new subspecies. – J. nat. Hist., 26: 165-195; London.
- (1992b): Types in the fish collection of the Staatliches Museum für Naturkunde in Stuttgart. Part 2. The KLUNZINGER collection. – Stuttgarter Beitr. Naturk., (A) 473: 1-25; Stuttgart.
- (1992c): *Synchiropus kuiteri*, a minute new dragonet (Callionymidae) from Flores, Indonesia. – Revue fr. Aquariol., 19 (3): 81-84; Nancy.
- (1993a): A new species of the genus *Callionymus* (Teleostei: Callionymidae) from Papua New Guinea. – Stuttgarter Beitr. Naturk., (A) 491: 1-4; Stuttgart.
- (1993b): Pisces Teleostei: Callionymidae of New Caledonia, with descriptions of new species. – In: CROSNIER, A. (ed.): Résultats des campagnes MUSORSTOM, volume 11. – Mém. Mus. natn. Hist. nat., Paris, 158: 361-376; Paris.
- (1994, 5 Sep.): Tripterygiid fishes of Australia, New Zealand and the Southwest Pacific

Ocean, with descriptions of 2 new genera and 16 new species (Teleostei). – Theses Zoologicae, 24: IX + 585 pp.; Königstein (Koeltz Scientific Books).

FRICKE, R. & M. Z. BROWNELL (1993): Two new dragonets of the genus *Callionymus* (Callionymidae) and a record of *Callionymus corallinus* from Miyake-jima, Izu Islands, Japan. – Jap. J. Ichthyol., 40 (1): 1–10; Tokyo.

FRICKE, R. & I. KOCH (1990): A new species of the lantern shark genus *Etmopterus* from Southern Africa (Elasmobranchii: Squalidae). – Stuttgarter Beitr. Naturk., (A) 450: 1–9; Stuttgart.

FRICKE, R. & LEE C.-L. (1993): *Callionymus leucopoecilus*, a new dragonet (Callionymidae) from the Yellow Sea. – Jap. J. Ichthyol., 39 (4): 275–279; Tokyo.

FRICKE, R. & J. E. RANDALL (1992): Tripterygiid fishes of the Maldives Islands, with descriptions of two new species (Teleostei: Blennioidei). – Stuttgarter Beitr. Naturk., (A) 484: 1–13, pl. 1; Stuttgart.

FRICKE, R. & C. D. ROBERTS (1993): *Grahamina*, a new genus for robust-bodied triplefins (Teleostei: Tripterygiidae) from New Zealand and Australia, with description of a new species. – Stuttgarter Beitr. Naturk., (A) 504: 1–19; Stuttgart.

GARMAN, S. (1881): New and little-known reptiles and fishes in the museum collections. – Bull. Mus. comp. Zool. Harv., 8 (3): 85–93; Cambridge, Massachusetts.

GÉRY, J. (1977): Characoids of the world. – 672 pp.; Neptune City (Tropical Fish Hobbyist Publications).

GON, O. & P. C. HEEMSTRA (eds.) (1990): Fishes of the Southern Ocean. – XVIII + 462 pp., 12 pls.; Grahamstown (J. L. B. Smith Institute of Ichthyology).

GÜNTHER, A. (1859): Catalogue of the Acanthopterygian fishes in the collection of the British Museum, 1. – XXXI + 524 pp.; London (British Museum).

- (1860): Third list of the cold-blooded Vertebrata collected by Mr. FRASER in Ecuador. – Proc. Zool. Soc., 28: 233–240; London.
- (1860–1870): Catalogue of the (Acanthopterygian) fishes in the (collection of the) British Museum. – vol. 2, XXII + 548 pp., 1860; vol. 4, XXII + 534 pp., 1862; vol. 5, XXII + 455 pp., 1864; vol. 6, XV + 368 pp., 1866; vol. 7, XX + 512 pp., 1868; vol. 8, XXV + 549 pp., 1870; London (British Museum).
- (1861): Catalogue of the Acanthopterygian fishes in the collection of the British Museum, 3. – XXV + 586 pp., London (British Museum).

HOLCIK, J. (1986): The freshwater fishes of Europe. 1/I. Petromyzontiformes. – 313 pp.; Wiesbaden (Aula).

HOWES, G. (1982): Review of the genus *Brycon* (Teleostei: Characoidei). – Bull. Brit. Mus. (Nat. Hist.), (Zool.) 43 (1): 1–47; London.

JORDAN, D. S. (1887): A catalogue of the fishes known to inhabit the waters of North America north of the Tropic of Cancer with notes on the species discovered in 1883 and 1884. – Rep. U.S. Commr Fish., 13, (1885): 789–973; Washington D.C.

JORDAN, D. S., B. W. EVERMANN & H. W. CLARK (1930): Checklist of the fishes and fishlike vertebrates of North and Middle America north of the northern boundary of Venezuela and Colombia. – Rep. U. S. Commr Fish., App. 10, (1928): 1–670; Washington, D. C.

KESSLER, K. (1870): Volzhskaya minoga (*Petromyzon wagneri* n. sp.). – Trudy Sankt-Petersburgskogo obshchestva estestvoznaniiya ispytatelej, 1: 207–214; St. Petersburg.

- (1872): Ikhtiologicheskaya fauna Turkestana. – Izvestiya obshchestva lyubitelei estestvoznaniiya, antropologii i etnografii, 10 (1): 47–79; St. Petersburg.
- (1874): Putechestvie A. P. FEDSCHENKO v Turkestan. Ryby. – Izvestiya obshchestva lyubitelei estestvoznaniiya, antropologii i etnografii, 11 (3): 1–63; St. Petersburg.

KLUNZINGER, C. B. (1872): Zur Fischfauna von Süd-Australien. – Arch. Naturgesch., 38 (1): 17–47; Leipzig.

- (1880): Die v. MÜLLER'sche Sammlung australischer Fische in Stuttgart. – Sber. Akad. Wiss., Wien, (1) 80, (1879): 325–430, pls. 1–9; Wien.

KRAUSS, F. (1879): Beiträge zur Fauna Württembergs. 5. Eine Varietät der Nase (*Chondrostoma nasus* L.). – Jh. Ver. vaterl. Naturk. Württ. 35: 348–349; Stuttgart.

- (1882): Beiträge zur Fauna Württembergs.-1. *Barbus fluviatilis* Ag. var. *alba*. – Jh. Ver. vaterl. Naturk. Württ. 38: 346; Stuttgart.

KRUPP, F. & W. SCHNEIDER (1989): The fishes of the Jordan River drainage basin and Azraq Oasis. – *Fauna Saudi Arab.*, **10**: 347–416; Jeddah.

LEE, D. S., C. R. GILBERT, C. H. HOCUTT, R. E. JENKINS, D. E. MCALLISTER & J. R. STAUFFER, Jr. (1980): *Atlas of North American freshwater fishes*. – X + 867 pp.; Raleigh (North Carolina State Museum).

LORTET, L. (1878): Poissons et reptiles du lac de Tibériade et de quelques autres parties de la Syrie. – *Archs Mus. Hist. nat. Lyon*, **2**: 99–189, pls. 6–18; Lyon.

LÜTKEN, C. F. (1874): *Siluridae novae Brasiliæ centralis a clarissimo J. REINHARDT in provincia Minas-geræs circa oppidulum Lagoa Santa, praecipue in flumine Rio das Velhas et affluentibus collectæ, secundum characteres essentiales breviter descriptæ*. – *Overs. K. dansk. Vidensk. Selsk. Forh.*, **1874**: 29–36; Kjøbenhavn.

– (1875): *Characinae novae Brasiliæ centralis a clarissimo J. REINHARDT in procincia Minas Geraes circa oppidulum Lagoa Santa in lacu eiusdem nominis, flumine Rio das Velhas et rivulis affluentibus collectæ, secundum characteres essentiales breviter descriptæ*. – *Overs. K. dansk. Vidensk. Selsk. Forh.*, **1874** **1875**: 127–142; Kjøbenhavn.

MCALLISTER, D. E. (1990): A list of the fishes of Canada. – *Syllogeus*, **64**: 1–310; Ottawa.

MCCULLOCH, A. R. (1911): Zoological results of the fishing experiments carried out by the F. I. S. "Endeavour" 1909–1910. – Report on the fishes obtained by the F.I.S. "Endeavour" on the coasts of New South Wales, Victoria, South Australia and Tasmania, **1** (1): 1–87, pls. 1–11; Sydney.

– (1929): A check-list of the fishes recorded from Australia, I–III. – *Mem. Aust. Mus.*, **5** (1–3): 1–436; Sydney.

MALABARBA, L. R. (1989): Historico sistemático e lista comentada das espécies de peixes de água doce do sistema de Laguna dos Patos, Rio Grande do Sul, Brasil. – *Comun. Mus. Cienc. PUCRS*, (Sér. Zool.) **2** (8): 107–179; Porto Alegre.

MEEK, S. E. (1904): The fresh-water fishes of Mexico north of the Isthmus of Tehuantepec. – *Publs Field Columbian Mus.*, (Zool. Ser.) **5**: I–LXIII + 1–252, pls. 1–17; Chicago.

NELSON, J. S. (1984): *Fishes of the world*. – 2nd ed., XV + 523 pp.; New York (J. Wiley).

NICHOLS, J. T. (1943): The fresh-water fishes of China. – XXVI + 322 pp.; New York (American Museum of Natural History).

NIELSEN, J. G. (1974): Fish types in the Zoological Museum of Copenhagen. – 115 pp.; Copenhagen (Zoological Museum).

NIJSSEN, H. & I. J. H. ISBRÜCKER (1980): A review of the genus *Corydoras* Lacépède, 1803 (Pisces, Siluriformes, Callichthyidae). – *Bijdr. Dierk.*, **50** (1): 190–220; Amsterdam.

OGILBY, J. D. (1898): On some Australian Eleotrinae. – *Proc. Linn. Soc. N. S. W.*, **23**: 783–793; Sydney.

PAPPENHEIM, P. (1911): Neue antarktische Fische. – *Sber. Ges. naturf. Fr. Berl.*, **1911**: 382–383; Berlin.

– (1913): Die Fische der Deutschen Südpolar-Expedition 1901–1903. I. Die Fische der Antarktis und Subantarktis. – Pp. 161–182, pls. 9–10. – In: DRYGALSKI, E. von (ed.): Deutsche Südpolar-Expedition 1901–1903 im Auftrage des Reichsamtes des Inneren. XIII. Band; Zoologie, V. Band. – VII + 402 pp., 46 pls.; Berlin (G. Reimer).

PAXTON, J. R., D. F. HOESE, G. R. ALLEN & J. E. HANLEY (1989): *Zoological catalogue of Australia. Vol. 7. Pisces: Petromyzontidae to Carangidae*. – XII + 665 pp.; Canberra (Australian Government Publishing Service).

PINTO, S. Y. (1974): Peixes de água doce da Guanabara. – *Archos Mus. Hist. nat.*, Univ. Minas Gerais, **1**: 49–125; Belo Horizonte.

POPTA, C. M. L. (1908): Einige Fischarten aus China, *Xenocypris lampertii* und *Chanoichthys stenii* nn. spp. – *Zool. Anz.*, **32**, (1907): 243–251; Jena.

– (1911): Ueber Fische von Wladiwostok und von Blagoweschtensk a. Amur, gesammelt von Herrn Dr. P. v. WITTENBURG. – *Jh. Ver. vaterl. Naturk. Württ.*, **1911**: 333–353; Stuttgart.

PUTNAM, F. W. (1863): List of the fishes sent by the museum to different institutions, in exchange for other specimens, with annotations. – *Bull. Mus. comp. Zool. Harv.*, **1**: 1–16; Cambridge, Massachusetts.

QUÉRO, J. C., J. C. HUREAU, C. KARRER, A. POST & L. SALDANHA (eds.) (1990): Check-list of the fishes of the eastern tropical Atlantic. II. – Pp. 520–1080; Lisboa (UNESCO).

RIDE, W. D. L., C. W. SABROSKY, G. BERNHARDI & R. V. MELVILLE (eds.) (1985): International code of zoological nomenclature, 3rd ed. – XX + 338 pp.; London (International Trust for Zoological Nomenclature).

SAINSBURY, K. J., P. J. KAILOLA & G. G. LEYLAND (1985): Continental shelf fishes of Northern and North-Western Australia. An illustrated guide. – VIII + 375 pp.; Canberra (Clouston & Hall).

SCHULZ, L. P. (1949): A further contribution to the ichthyology of Venezuela. – Proc. U. S. nat. Mus., 99 (3235): 1–211; Washington D. C.

SCOTT, T. D., C. J. M. GLOVER & R. V. SOUTHcott (1974): The marine and freshwater fishes of South Australia. 2nd ed. – 393 pp.; Adelaide (D. J. Woolman, Govt. Printer).

SHEN, S.-C. & K.-Y. WU (1994, 31 July): A revision of the tripterygiid fishes from coastal waters of Taiwan with descriptions of two new genera and five new species. – Acta zool. taiwanica, 5 (2): 1–32; Taipei.

SMITH, M. M. & P. C. HEEMSTRA (1986): SMITH's sea fishes. – XX + 1046 pp., 144 pls.; Johannesburg (Macmillan South Africa).

SPRINGER, V. G. & J. T. WILLIAMS (1994): The Indo-West Pacific blenniid fish genus *Istiblennius* reappraised: a revision of *Istiblennius*, *Blenniella*, and *Paralticus*, new genus. – Smithson. Contr. Zool., 565: 1–193; Washington, D.C.

STEINDACHNER, F. (1870): Ichthyologische Notizen (X) (Schluss). – Sber. Akad. Wiss. Wien, (math.-nat. Cl.), 61 (1): 623–642, pls 1–5; Wien.

- (1879a): Ichthyologische Beiträge (VII). – Sber. Akad. Wiss. Wien (math.-nat. Cl.), (1878), 78 (1): 377–400; Wien.
- (1879b): Einige neue und seltene Fisch-Arten aus den K. K. Zoologischen Museen zu Wien, Stuttgart und Warschau. 1. Zur Fisch-Fauna von Süd-Australien. – Denkschr. Akad. Wiss., Wien, 41 (1): 1–52, pls. 1–9; Wien.
- (1879c): Zur Fisch-Fauna des Magdalenen-Stromes. – Denkschr. Akad. Wiss. Wien, (math.-nat. Cl.) 39: 19–78, pls 1–15; Wien.
- (1880): Ichthyologische Beiträge (VIII). – Sber. Akad. Wiss. Wien (math.-nat. Cl.), 80 (1), (1879): 119–191, pls. 1–3; Wien.
- (1910): (Das w. M. Hofrat F. STEINDACHNER berichtet über eine neue *Loricaria*-Art aus dem Flusssgebiete des Jaraguá und der Ribeira im Staaate S. Paulo und Sa. Catharina, über eine mit *Ancistrus aculeatus* (Perugia) = *Ancistrus gigas* (Blgr.) Reg. sehr nahe verwandte *Ancistrus*-Art aus dem Rio S. Francisco bei Barra, über eine neue *Corydoras*-Art aus dem Jaraguá und über die äußeren Geschlechtsunterschiede von *Corydoras kronei*, Ribeira). – Anz. Akad. Wiss. Wien, (math.-nat. Cl.) 47 (8): 57–62; Wien.

VEESENAYER, G. (1884): Beiträge zur Fauna Württembergs. I. *Barbus fluviatilis* var. *aurata*. – Jh. Ver. vaterl. Naturk. Württ. 40: 325–326; Stuttgart.

WEBER, M. (1917): Süsswasserfische von Neu-Guinea. Ein Beitrag zur Frage nach dem früheren Zusammenhang von Neu-Guinea und Australien. – Nova Guinea, (5, Zool.) 1917: 201–267, pls. 11–13; Leiden.

WEBER, M. & L. F. DE BEAUFORT (1936): The fishes of the Indo-Australian Archipelago. VII. Perciformes (continued). Families: Chaetodontidae, Toxotidae, Monodactylidae, Pempheridae, Kyphosidae, Lutjanidae, Lobotidae, Sparidae, Nandidae, Sciaenidae, Malacanthidae, Cepolidae. – XVI + 607 pp.; Leiden (Brill).

WHITEHEAD, P. J. P. (1985): FAO species catalogue. Vol. 7. Clupeoid fishes of the world (suborder Clupeoidei). An annotated and illustrated catalogue of the herrings, sardines, pilchards, sprats, shads, anchovies and wolf-herrings. Part 1 – Chirocentridae, Clupeidae and Pristigasteridae. – X + 303 pp.; Rome (FAO).

WHITEHEAD, P. J. P., M.-L. BAUCHOT, J.-C. HUREAU, J. NIELSEN & E. TORTONESE (1986): Fishes of the north-eastern Atlantic and the Mediterranean. Vol. 3. – Pp. 1015–1473; Paris. (UNESCO).

WHITEHEAD, P. J. P., G. J. NELSON & T. WONGRATANA (1988): FAO species catalogue. Vol. 7. Clupeoid fishes of the world (suborder Clupeoidei). An annotated and illustrated catalogue of the herrings, sardines, pilchards, sprats, shads, anchovies and wolf-herrings. Part 2 – Engraulididae. – Pp. I–VIII + 305–579; Rome (FAO).

WHITLEY, G. P. (1929): Some fishes of the order Amphiprioniformes. – Mem. Queensland Mus., 9 (3): 207–246, pls. 27–28; Brisbane.

- (1931): New names for Australian fishes. – *Aust. Zool.*, 6 (4): 310–334, pls. 25–27; Sydney.
- WIRTZ, P. & H. BATH (1982): *Lipophrys bauchotae* n. sp. from the eastern tropical Atlantic (Pisces: Blenniidae). – *Senckenbergiana biol.*, 62 (4–6): 225–232; Frankfurt/Main.
- & – (1989): *Lipophrys caboverdensis* n. sp. from the Cape Verde Islands (Pisces: Blenniidae). – *Senckenbergiana biol.*, 69 (1–3): 15–27; Frankfurt/Main.

7. Index

(Types are printed in **bold** type)

Acestrorhynchus lacustris 9
Achirus rautheri 18
africana, *Eleotris* 12
africana, *Parachanna* 8
africanus, *Bostrychus* 12
africanus, *Ophiocephalus* 8
alba, *Barbus fluviatilis* 10
alba, *Cyclothona* 15
alba, *Cyclothona signata* 15
albula, *Curimata* 10
Alburnus formosus 10
Alburnus lineolatus 10
Alburnus rubellus 10
Alburnus zonatus 10
Ammocrypta pellucida 13
Anostomidae 4
antarcticus, *Lycodichthys* 21
Aplocheilidae 4
Aplocheilus blockii 4
Apopterygion oculus 19
Astyanax bimaculatus lacustris 9
Astyanax caucanus 8
Astyanax scabripinnis rivularis 9
Auchenipteridae 4
Auchenipterus lacustris 4
aurata, *Barbus fluviatilis* 10
australis, *Engraulis* 13
Awaous flavus 14

Bagridae 5
Barbus barbus barbus 10
Barbus fluviatilis alba 10
Barbus fluviatilis aurata 10
bauchotae, *Lipophrys* 5
bichrous, *Enneapterygius* 19
bicornis, *Parequula* 13
bimaculatus lacustris, *Astyanax* 9
Blenniidae 5
blockii, *Aplocheilus* 4
borchgrevinki, *Pagothenia* 17
Bostrychus africanus 12
brachycephalum, *Pachycara* 21
brachycephalus, *Lycodes* 21
brachysoma, *Pagothenia* 16
brachysoma, *Trematomus* 16
brandtii, *Serrasalmo* 8
brandtii, *Serrasalmus* 8

brasiliensis, *Trichomycterus* 19
Brycon dentex 8
Brycon reinhardtii 8
bucchichi, *Gobius* 14

caboverdensis, *Lipophrys* 5
caboverdiana, *Scartella* 6
Callichthyidae 6
Callionymidae 6
Callionymus colini 6
Callionymus curvispinis 6
Callionymus gardineri rivatoni 6
Callionymus leucopoeirus 7
Callionymus persicus izuensis 7
Callionymus superbus 7
Callionymus tethys 7
Carassius klunzingeri 12
Caspiomyzon wagneri 17
caucanus, *Astyanax* 8
caucanus, *Tetragonopterus* 8
Centrodraco oregonus lineatus 12
Centrodraco rubellus 12
Channidae 8
Chanodichthys stenii 11
Characidae 8
Chondrostoma nasus macrolepidotus 11
Chromis klunzingeri 18
Chromis magdalena 9
Chromis tiberiadis 9
Cichlidae 9
claudiae, *Synchiropus* 7
Clupea macrolepis 10
Clupea neopilchardus 10
Clupeidae 10
colini, *Callionymus* 6
commersonii, *Hypostomus* 16
compagnoi, *Etmopterus* 19
Corydoras ehrhardti 6
Curimata albula 10
Curimatidae 10
Curimatus gilberti gilberti 10
curvispinis, *Callionymus* 6
Cyclothona alba 15
Cyclothona livida 14
Cyclothona microdon pallida 14
Cyclothona obscura 14
Cyclothona pallida 14

Cyclothona signata alba 15
Cyprinidae 10
Cyprinodon latifasciatus 12
Cyprinodontidae 12
cyprinoides, *Eleotris* 12

daganensis, *Eleotris* 12
davidi lamperti, *Xenocypris* 11
dentata, *Raja* 18
dentex, *Brycon* 8
Dexillichthys muelleri 19
diallo, *Parablennius* 5
Draconettidae 12

ehrhardti, *Corydoras* 6
Eleotrididae 12
Eleotris africana 12
Eleotris cyprinoides 12
Eleotris daganensis 12
Eleotris heterura 12
Eleotris kraussii 12
Eleotris lembus 13
Engraulididae 13
Engraulis australis 13
Enneapterygius bichrous 19
Enneapterygius flavoccipitis 19
Enneapterygius gracilis 20
Enneapterygius kermadecensis 20
Enneapterygius larsonae 20
Enneapterygius niger 20
Enneapterygius paucifasciatus 20
Equula novae-hollandiae 16
Etheostomatidae 13
Etheostoma microperca 13
Etmopterus compagnoi 19

flavoccipitis, *Enneapterygius* 19
flavonigrum, *Forsterygion* 20
flavus, *Awaous* 14
fluviatilis alba, *Barbus* 10
fluviatilis aurata, *Barbus* 10
formosus, *Alburnus* 10
Forsterygion flavonigrum 20
fulvidraco, *Pseudobagrus* 5
fur, *Pseudorhamdia* 17

galilaeus, *Sarotherodon* 9
gardineri rivatoni, *Callionymus* 6
garmani, *Notropis* 11
Gerreidae 13
gilberti gilberti, *Curimatus* 10
Gobiidae 14
Gobio kessleri banaticus 11
Gobio kessleri kessleri banaticus 11
Gobius buchichi 14
Gobius kraussii 14
Gonostomatidae 14

gracilis, *Enneapterygius* 20
gracilis, *Hemigrammus* 9
gracilis, *Tetragonopterus* 9
Grahamina signata 21
guttatus, *Percopsis* 17

Hasemania nana 9
Helcogramma larvata 21
Helcogramma maldivensis 21
Helcogramma novaecaledoniae 21
Heliastes hypsilepis 18
Hemigrammus gracilis 9
heterura, *Eleotris* 12
Hypostomus commersonii 16
hypselopterus, *Notropis* 10
hypsilepis, *Heliastes* 18

indicus, *Pimelepterus* 15
Istiblennius spilotus 5
izuensis, *Callionymus persicus* 7

kermadecensis, *Enneapterygius* 20
kessleri banaticus, *Gobio* 11
kessleri kessleri banaticus, *Gobio* 11
klunzingeri, *Carassius* 12
klunzingeri, *Chromis* 18
klunzingeri, *Pardachirus* 18
klunzingeri, *Pempheris* 17
klunzingeri, *Segutilum* 15
Kraussia 13
kraussii, *Eleotris* 12
kraussii, *Gobius* 14
kraussii, *Petenia* 9
kuiteri, *Synchiropus* 8
Kyphosidae 15
Kyphosus sydneyanus 15

labrovittatus, *Praealticus* 6
lacustris, *Astyanax bimaculatus* 9
lacustris, *Acstrorhynchus* 9
lacustris, *Auchenipterus* 4
lacustris, *Tetragonopterus* 9
lacustris, *Xiphorhamphus* 9
lamperti, *Xenocypris davidi* 11
lamperti, *Xenocypris* 11
larsonae, *Enneapterygius* 20
larvata, *Helcogramma* 21
latifasciatus, *Cyprinodon* 12
Latridae 15
Leiognathidae 16
Leiognathus novae-hollandiae 16
lembus, *Eleotris* 13
Lembus maculatus 13
lemprieri, *Raja* 18
Leporinus reinhardti 4
Leporinus taeniatus 4
Leptobrama mülleri 16

Leptobramidae 16
Leuciscus squaliusculus 11
leucopoecilus, *Callionymus* 7
libani, *Phoxinellus* 11
lima, *Plecostomus* 16
lineatus, *Centrodraco oregonus* 12
lineolatus, *Alburnus* 10
Lipophrys bauchotae 5
Lipophrys caboverdensis 5
livida, *Cyclothona* 14
Loricariidae 16
Lycodes brachycephalus 22
Lycodichthys antarcticus 22

macrolepidotus, *Chondrostoma nasus* 11
macrolepis, *Clupea* 10
maculatus, *Lembus* 13
maculatus, *Philypnus* 13
magdalena, *Chromis* 9
maldivensis, *Helcogramma* 21
melbournensis, *Parequula* 13
microdon pallida, *Cyclothona* 14
microporca, *Etheostoma* 13
Microperca punctulata 13
Micropus mülleri 15
mülleri, *Dexillichthys* 19
mülleri, *Leptobrama* 16
mülleri, *Micropus* 15
mülleri, *Orqueta* 15
mülleri, *Pempheris* 17
mülleri, *Sciaena* 18
mülleri, *Sciaena (Corvina)* 18
mülleri, *Synaptura* 19
Myctophidae 16
Myctophum valdiviae 16

nana, *Hasemania* 9
nanus, *Tetragonopterus* 9
nasus macrolepidotus, *Chondrostoma* 11
neopilchardus, *Clupea* 10
niger, *Enneapterygius* 20
Notolychnus valdiviae 16
Nototheniidae 16
Notropis garmani 11
Notropis hypselopterus 10
Notropis rubellus 10
Notropis zonatus 10
novaecaledoniae, *Helcogramma* 21
novaecaledoniae, *Synchiropus* 8
novae-hollandiae, *Equula* 16
novae-hollandiae, *Leiognathus* 16
novae-hollandiae, *Ogilbyina* 18
novae-hollandiae, *Pseudochromis* 18

obscura, *Cyclothona* 14
oculus, *Apopterygion* 19
Ogilbyina novaehollandiae 18

omiscomayus, *Percopsis* 17
Ophiocephalus africanus 8
oregonus lineatus, *Centrodraco* 12
Orqueta mülleri 15

Pachycara brachycephalum 21
Pagothenia borchgrevinki 17
Pagothenia brachysoma 16
pallida, *Cyclothona* 14
pallida, *Cyclothona microdon* 14
Parablennius diallo 5
Parablennius salensis 5
Parablennius sierraensis 5
Parabramis pekinensis 11
Parachanna africana 8
Pardachirus klunzingeri 18
Parequula bicornis 13
Parequula melbournensis 13
paucifasciatus, *Enneapterygius* 20
pekinensis, *Parabramis* 11
pellucida, *Ammocrypta* 13
pellucidus, *Pleurolepis* 13
Pempheridae 17
Pempheris klunzingeri 17
Pempheris mülleri 17
Perca schrenki 17
Percidae 17
Percopsidae 17
Percopsis guttatus 17
Percopsis omiscomayus 17
persicus izuensis, *Callionymus* 7
Petenia kraussii 9
Petromyzon wagneri 17
Petromyzontidae 17
Philypnus maculatus 13
Phoxinellus libani 11
Pimelepterus indicus 15
Pimelodidae 17
Plecostomus lima 16
Pleurolepis pellucidus 13
Pomacentridae 18
poropterus, *Solea* 19
Praealticus labrovittatus 6
Pseudobagrus fulvidraco 5
Pseudobagrus wittenburgii 5
Pseudochromidae 18
Pseudochromis novachollandiae 18
Pseudorhamdia fur 17
Pseudorhamdia vittatus 17
Pseudosciaena soldado 18
punctulata, *Microperca* 13
punctulatus, *Tridentiger* 14

Raja dentata 18
Raja lemprieri 18
Rajidae 18
rautheri, *Achirus* 18

reinhardtii, *Brycon* 8
reinhardtii, *Leporinus* 4
rivatoni, *Callionymus gardineri* 6
rivularis, *Astyanax scabripinnis* 9
rivularis, *Tetragonopterus* 9
rubellus, *Alburnus* 10
rubellus, *Centrodraco* 12
rubellus, *Notropis* 10
rubripinna, *Cyprinella* 11

salensis, *Parablennius* 5
Sarotherodon galilaeus 9
scabripinnis rivularis, *Astyanax* 9
Scartella caboverdiana 6
schrenki, *Perca* 17
Sciaena (Corvina) mülleri 18
Sciaena mülleri 18
Sciaenidae 18
Segitilum klunzingeri 15
Serrasalmo brandtii 8
Serrasalmus brandtii 8
sierraensis, *Parablennius* 5
signata alba, *Cyclothona* 15
signata, *Grahamina* 21
simonis, *Tristamella* 9
soldado, *Pseudosciaena* 18
Solea poropterus 19
Soleidae 18
spilotus, *Istiblennius* 5
Squalidae 19
squaliusculus, *Leuciscus* 11
stenzii, *Chanodichthys* 11
superbus, *Callionymus* 7
sydneyanus, *Kyphosus* 15
Synaptura mülleri 19
Synchiropus claudiae 7

Synchiropus kuiteri 8
Synchiropus novaecaledoniae 8

taeniatus, *Leporinus* 4
tethys, *Callionymus* 7
Tetragonopterus caucanus 8
Tetragonopterus gracilis 9
Tetragonopterus lacustris 9
Tetragonopterus nanus 9
Tetragonopterus rivularis 9
tiberiadis, *Chromis* 9
Trematomus brachysoma 16
Trichomycteridae 19
Trichomycterus brasiliensis 19
Tridentiger punctulatus 14
Tridentiger trigonocephalus 14
trigonocephalus, *Tridentiger* 14
Tripterygiidae 19
Tristamella simonis 9

valdiviae, *Myctophum* 16
valdiviae, *Notolychnus* 16
vittatus, *Pseudorhamdia* 17

wagneri, *Caspiomyzon* 17
wagneri, *Petromyzon* 17
wittenburgii, *Pseudobagrus* 5

Xenocypris davidi lampertii 11
Xenocypris lampertii 11
Xiphorhamphus lacustris 9

Zoarcidae 22
zonatus, *Alburnus* 10
zonatus, *Notropis* 10.

Author's address:

Dr. RONALD FRICKE, Staatliches Museum für Naturkunde (Museum Schloss Rosenstein), Rosenstein 1, D-70191 Stuttgart, Federal Republic of Germany.